



# Maricopa County

Air Quality Department



*AD in sharp*

Return completed form to:  
Maricopa County Air Quality Department  
1001 N Central Ave, Suite 125, Phoenix, AZ 85004  
Phone (602) 506-6010 Fax (602) 372-0587  
AQPermits@mail.maricopa.gov

## NON-TITLE V PERMIT APPLICATION

### APPLICATION FOR THE AUTHORITY TO OPERATE AND/OR CONSTRUCT A NON-TITLE V OPERATION

As required by A.R.S. §49-480 and Maricopa County Air Pollution Control Regulations, Rule 200)

**ALL APPLICANTS MUST COMPLETE THE ENTIRE APPLICATION**

**Important:** Please note that email will be our primary means for routine communication with you, unless you do not have an email account. Please be sure that your email address is entered correctly. *# 160035-42583*

1. Business Name (as filed with the Arizona Corporation Commission): MR Steel Aquisition Corp

2. Is this a portable source?  Yes (If yes, provide the current site information in items 2a, 3 and 3a)  
 No (Complete items 2a, 3, and 3a)

2a. Address of site: 4100 W. Glenrosa Ave  
City: Phoenix State: AZ Zip Code: 85019

2b. Parcel # 107-02-067E LOOKUP AT: <http://mcassessor.maricopa.gov/Assessor/ParcelApplication/Default.aspx>

3. Contact Person at Site: Dan King

4. Type of Ownership:  Corporation  Sole Owner  Partnership  Government  Other - Specify:

5. Name of Ownership or Legal Entity: Sunbelt Modular Inc.  
Address: 4100 W. Glenrosa Ave  
City: Phoenix State: Arizona Zip Code: 85019

6. Ownership Contact: Ron Procuier 6b. Fax: 602-278-0317  
6a. Telephone: 602-278-3355

7. Send All Correspondence Including Invoice And Permit To:  
Company Name: Sunbelt Modular Inc.  
Address: 4100 W. Glenrosa Ave  
City: Phoenix State: Arizona Zip Code: 85019  
ATTN: Dan King

8. SIC (Standard Industrial Classification) or NAICS (North American Industry Classification) Code(s): 3441  
9. Is this a renewal application?  Yes  No  
If yes, enter the existing air permit number for this site: N/A *PRIOR 61329lp*

10. If this application is submitted as a renewal application, has the ownership of this facility changed since the permit was last issued or transferred?  Yes  No

11. Brief Description Of Business Or Process At Site: Steel Fabrication

12. Operating Schedule: Hours Per Day: 8 Days Per Week: 5 Weeks Per Year: 52 13. Projected Start-Up Date (New Facilities):

14. The authorized contact person regarding this application is:  
Name: Dan King Telephone: 602-278-3355  
Title: Vice President Fax: 602-278-0317  
Company: MR Steel Aquisition Corp E-mail: Dan @ mrsteel.com

15. I certify that I am familiar with the operations and equipment represented on this application and attachments and the information provided herein is true and complete to the best of my knowledge.  
Signature of owner or responsible official of business: *Dan King V.P.* Date: 4-4-16  
Type or Print Name and Title:

For Office Use Only | Date Received: | Log Number:

**MARICOPA COUNTY  
AIR QUALITY  
DEPARTMENT**

**PERMITTING DIVISION  
1001 N Central Ave, Suite 400  
Phoenix, AZ 85004**

**SUNBELT MODULAR, INC  
C/O DAN KING  
4100 W GLENROSA AVE  
PHOENIX, AZ 85019**

**Permit: 160035**

**Expiration:**

**M.R. STEEL ACQUISITION CORPORATION  
4100 W GLENROSA AVE PHOENIX 85019**

**ENCLOSED IS A COPY OF YOUR RECEIPT NUMBER 3274030320 IN THE AMOUNT OF**

**\$200.00 THAT WAS APPLIED TO: *AIR*  
*NON-TITLE V*  
*PERMIT APPLICATION***

**IF YOU HAVE ANY QUESTIONS PLEASE CALL (602) 506-6010**

**Application ID: 412583**



# Maricopa County

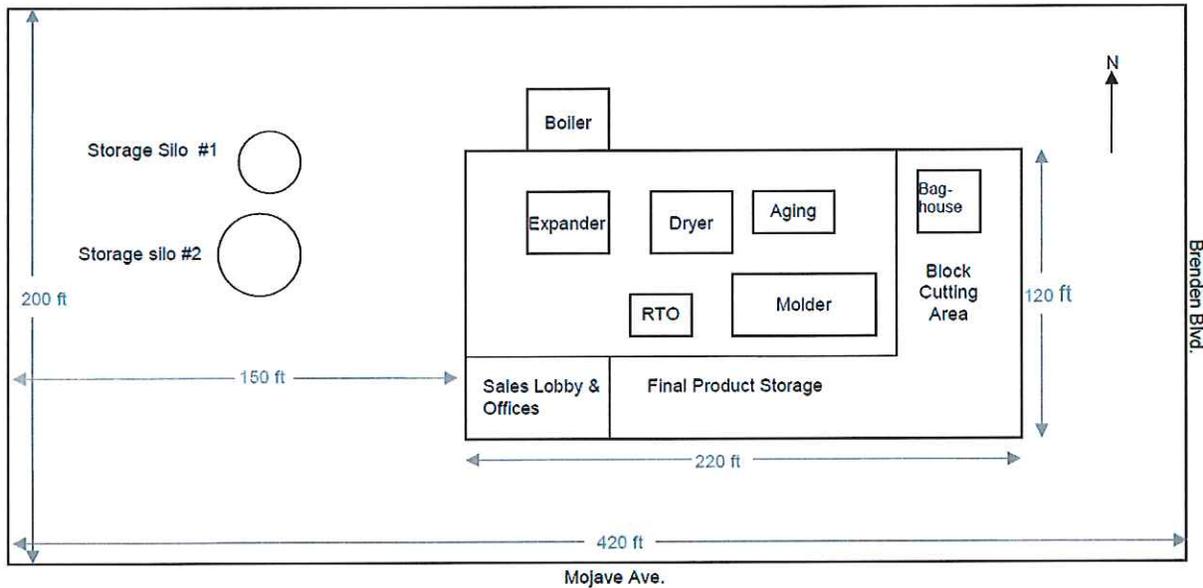
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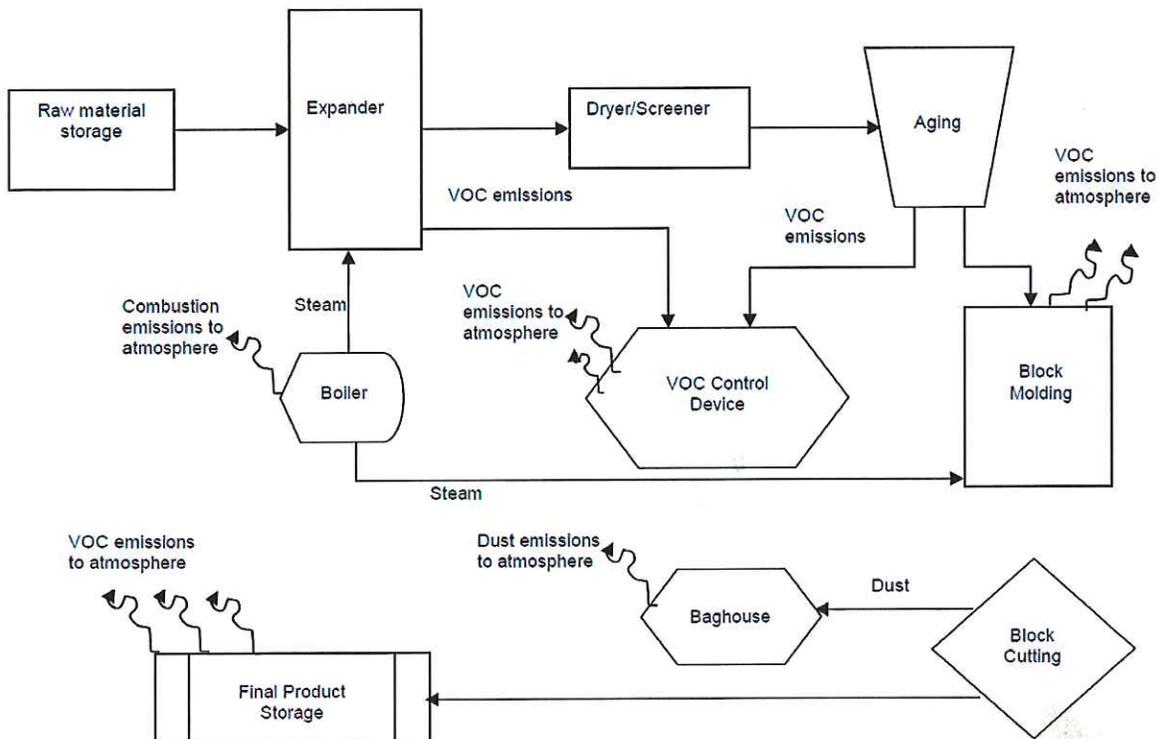
16. SITE DIAGRAM: Attach a site layout showing distances to property lines, equipment, controls, ducts, stacks and emission points. Also show storage areas for fuels, raw materials, chemicals, finished products, waste materials, etc.

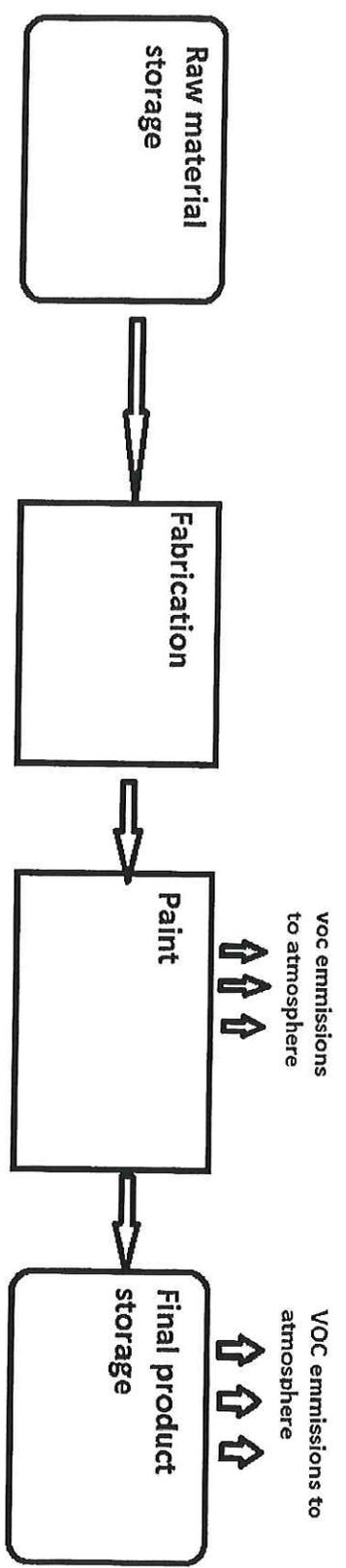
EXAMPLE SITE DIAGRAM

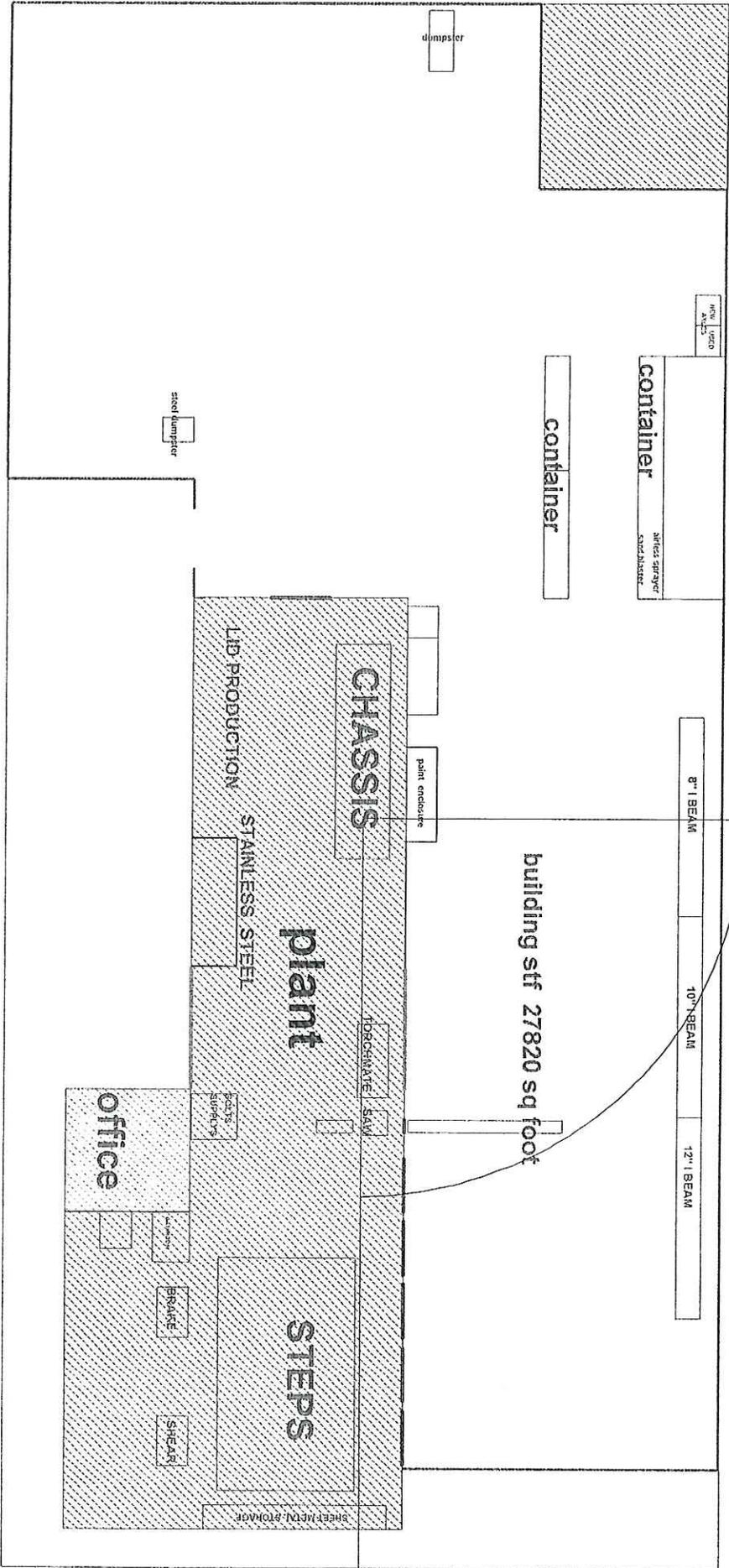


17. PROCESS FLOW DIAGRAM: Attach a flow diagram which indicates how processes/activities are conducted at the facility. Begin with raw materials and show each step in the production process. Also indicate emissions control devices and all emission points. An example process flow diagram is provided below.

EXAMPLE PROCESS FLOW DIAGRAM









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18. OPERATION & MAINTENANCE (O&M) PLAN(S). O&M Plans are required for any process that vents emissions through a control device and includes both add-on control type equipment or processes whose controls are integrated into the design of the process equipment. Indicate if your facility has such control devices. (The list below is not an all-inclusive list of control devices.)

<u>Equipment</u>	<u>No</u>	<u>Yes</u>	<u>How Many?</u>
Baghouse	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Dust Collector/Filter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Incineration System (e.g., catalytic or thermal oxidizer, afterburner, boiler, process heater, flare) – Specify:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
_____			
Scrubber	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Adsorption Unit (e.g., resin, carbon filter, other) - Specify:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
_____			
Absorption Unit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Other - Specify:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

If you checked YES to any of these boxes, attach a separate O&M Plan for each control device. The O&M Plan should describe key system operating parameters and appropriate operating ranges for these parameters. For new equipment or processes, provide an educated estimate of the ranges of any parameters to be monitored. These ranges should be supported with manufacturer's test data or other manufacturer's data from engineering calculations and/or experience with the equipment. In addition, O&M Plans should be prepared in accordance with Maricopa County Air Quality Department - Operation and Maintenance (O&M) Plan Guidelines. A copy of these guidelines can be obtained at: [http://www.maricopa.gov/aq/divisions/permit\\_engineering/docs/pdf/OMGuidelines.pdf](http://www.maricopa.gov/aq/divisions/permit_engineering/docs/pdf/OMGuidelines.pdf) or by contacting the Permits Program Coordinator at (602) 506-6094. Multiple control devices can be combined in a single O&M Plan providing they are identical in type, capacity, and use. A separate O&M Plan is required for each device that is unique in type, capacity, or use.

19. DUST CONTROL PLAN. The owner and/or operator of a dust-generating operation shall submit to the Control Officer a Dust Control Plan with any permit applications that involve dust-generating operations with a disturbed surface area that equals or exceeds 0.10 acre (4,356 square feet). Facilities subject to Rule 316: Nonmetallic Mineral Processing are also required to submit a Dust Control Plan.

<u>Requirement</u>	<u>No</u>	<u>Yes</u>	<u>Disturbed Surface Area ≥ 0.10 Acre</u>	<u>Subject to Rule 316</u>
Dust Control Plan	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

For further guidance completing the dust control plan, review the "Guidance For Dust Control Permit For Application" document located at <http://www.maricopa.gov/aq/divisions/compliance/dust/docs/pdf/DustControlPlanStationarySource.pdf> or contact the Dust Compliance Division at (602) 506-6010.



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20. APPLICABLE SECTIONS. Review each section of the application and mark below which sections apply to this facility. In the final application, submit only those sections that apply to this facility. Note that Section Z must be completed by all applicants.

- A Fuel Burning Equipment
- B Internal Combustion Engines & Turbines
- C Petroleum Storage Tanks
- D Water & Soil Remediation
- E-1 Spray Painting & Other Surface Coating (excluding vehicle and wood coating)
- E-2 Vehicle & Mobile Equipment Coating
- F Woodworking and Wood Coating Operations
- G Solvent Cleaning
- H Plating, Etching & Other Metal Finishing Processes
- I Dry Cleaning Equipment
- J Graphic Arts
- K-1 Concrete Batch Plants
- K-2 Non-Metallic Mineral Mining and Processing
- K-3 Asphalt Production
- K-4 Non-Metallic Mineral Processing (continued)
- L Other Dust-Generating Operations
- M Abrasive Blasting
- X-1 Point Source Emissions of Hazardous Air Pollutants
- X-2 Non-Point Area Emission Sources for Hazardous Air Pollutants
- Y Other Sources
- Z Air Pollution Emissions



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## NON-TITLE V PERMIT APPLICATION

### SECTION A. EXTERNAL FUEL BURNING EQUIPMENT

Your facility may not require a Non-Title V permit if the facility is eligible to obtain an authority to operate (ATO) under a general permit. (Refer to [http://www.maricopa.gov/aq/divisions/permit\\_engineering/docs/pdf/fuel-burning-permit-application.pdf](http://www.maricopa.gov/aq/divisions/permit_engineering/docs/pdf/fuel-burning-permit-application.pdf) to determine eligibility.)

Complete this section if you burn natural gas, propane, butane, waste derived fuel, fuel oils, diesel, kerosene, gasoline, coal, charcoal, wood, or any other fossil fuel. Provide complete specifications for non-commercial and special fuels. Describe equipment such as boilers, furnaces, space heaters, water heaters, dryers, pool and spa heaters, kilns, ovens, burners, stoves, steam cleaners, hot water pressure washers, etc, with an input rating of 300,000 Btu/hr or more. Do not include vehicles, forklifts, lawn mowers, weed eaters and hand-held equipment operating on fossil fuels. Use Section Y to describe items such as asphalt kettles, incinerators, crematories, and emission control devices burning fuel. List internal combustion engines and gas turbines in Section B.

Fuel Type	Equipment Description. (Include make & model.) Describe air pollution abatement/controls, if any.	Date of Installation	How Many	Number of Hours in Operation Daily	Number of Hours in Operation Annually	Equipment Rating (Btu/hr or MMBtu/hr)
	N/A					



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## NON-TITLE V PERMIT APPLICATION

### SECTION B. INTERNAL COMBUSTION ENGINES & TURBINES

Your facility may not require a Non-Title V permit if the facility is eligible to obtain an authority to operate (ATO) under a general permit. (Refer to [http://www.maricopa.gov/aq/divisions/permit\\_engineering/docs/pdf/emergency-ICE-permit-application.pdf](http://www.maricopa.gov/aq/divisions/permit_engineering/docs/pdf/emergency-ICE-permit-application.pdf) to determine eligibility.)

This section applies to stationary and portable fuel-fired equipment such as generators, fire pumps, air conditioning compressor engines, co-generation units, etc. Indicate in the description if the equipment is used only for emergency purposes. Attach the manufacturer's specification sheets for each engine listing the engine make, model, model year, emission data, and maximum engine power rating. Do not include vehicles, forklifts, lawn mowers and hand-held equipment. Use additional sheets if necessary.

Fuel Type	Equipment Description. (Include make & model.) Describe air pollution abatement/controls, if any.	Date of Manufacture	How Many	Number of Hours in Operation Daily	Number of Hours in Operation Annually	Engine Rating <sup>1</sup> (bhp, bkW)	Genset Output <sup>2</sup> (hp, kW)
	N/A						

<sup>1</sup>Enter the brake horsepower (bhp) or brake kilowatt (bkW) rating of the engine. This information may be found on the engine faceplate or obtained from the engine manufacturer. NOTE: The engine bhp/bkW rating should not be confused with the output power rating of the generator.

<sup>2</sup>Enter the output power rating of the generator. This information may be found on the generator faceplate or obtained from the generator manufacturer.



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### SECTION C. PETROLEUM STORAGE TANKS

Your facility may not require a Non-Title V permit if the facility is eligible to obtain an authority to operate (ATO) under a general permit. (Refer to [http://www.maricopa.gov/aq/divisions/permit\\_engineering/docs/pdf/gas-dispensing-permit-application.pdf](http://www.maricopa.gov/aq/divisions/permit_engineering/docs/pdf/gas-dispensing-permit-application.pdf) to determine eligibility.)

This section applies to storage of gasoline and other fuels which have a true vapor pressure of 1.5 psia (77.6 mm of mercury) or greater under actual loading conditions. Petroleum terminals and bulk plants must use Section Y instead of this section. Also use Section Y to list storage tanks containing liquids with a vapor pressure less than 1.5 psia, non-petroleum organic liquids, caustic solutions, acids, etc.

#### 1. Describe Tanks and Products Stored

How Many	Capacity of Each Tank (Gallons)	Date of Installation	Above Ground or Underground	Product Stored
			N/A	

#### 2. Estimate total annual throughput for each product stored in these tanks (gallons/year).

Product: _____	Gallons/year: _____	Product: _____	Gallons/year: _____
Product: _____	Gallons/year: _____	Product: _____	Gallons/year: _____
Product: _____	Gallons/year: _____	Product: _____	Gallons/year: _____

3. Is any gasoline stored at this facility resold?  Yes  No  N/A (Gasoline is not stored at this facility.)

4. Emissions Controls  Stage I Vapor Recovery  Stage II  None

5. Fill Type  Submerged Fill\*  Bottom Fill  Other - Specify \_\_\_\_\_

\*A fill pipe is considered submerged if the discharge opening is completely submerged when the liquid level is six inches (15 cm) from the bottom of the tank. All gasoline storage tanks must be equipped with a submerged fill pipe.



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## NON-TITLE V PERMIT APPLICATION

### SECTION D. WATER & SOIL REMEDIATION

This section applies to any site where clean-up activities for contaminated soil or water will be conducted.

1. Type of Contaminant  Diesel  Gasoline  Other - Specify N/A

2. Contaminated Material  Soil  Water

3. Control Device  Carbon Cannister  Catalytic Oxidizer  Biofilter  Thermal Oxidizer  
 Other - Specify \_\_\_\_\_

4. Concentration of each contaminant (Specify unit of measure)

Contaminant: \_\_\_\_\_ Concentration: \_\_\_\_\_

Contaminant: \_\_\_\_\_ Concentration: \_\_\_\_\_

Contaminant: \_\_\_\_\_ Concentration: \_\_\_\_\_

5. Briefly describe procedure. (Describe fully in the scope of work summary required by Item 9 of this section.)

N/A

6. Estimated VOC emission rates

Before the control device:  lb/day  lb/hr

After the control device:  lb/day  lb/hr

7. Briefly describe type, capacity & efficiency of controls for air emissions. (Describe fully in the scope of work summary required by Item 9 of this section.)

8. Projected start-up and completion dates

Start-up Date: \_\_\_\_\_ Completion Date: \_\_\_\_\_

9. Attach full details of scope of work, treatment procedures, equipment specifications and test results. Include calculations used to estimate VOC and federal hazardous air pollutant emissions.



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## NON-TITLE V PERMIT APPLICATION

### SECTION E-1. SPRAY PAINTING & OTHER SURFACE COATING

(Excluding vehicle coating [Section E-2] and wood coating [Section F])

Your facility may not require a Non-Title V permit if the facility is eligible to obtain an authority to operate (ATO) under a general permit. (Refer to [http://www.maricopa.gov/aq/divisions/permit\\_engineering/docs/pdf/surface-coating-permit-application.pdf](http://www.maricopa.gov/aq/divisions/permit_engineering/docs/pdf/surface-coating-permit-application.pdf) to determine eligibility.)

This section applies to but is not limited to: spray painting, powder coating, dipping, ultrasound coating and roller, brush and wipe applications. In response to item 1, list all materials used in painting or coating operations, including but not limited to: paints, primers, clear coats, catalysts, thinners, reducers, accelerators, retarders, paint strippers, gun cleaners, cleaning solvents, stains, plastic coatings, adhesives and surface preparation materials. Attach a manufacturer's technical data sheet or material safety data sheet (MSDS) for each material listed and number it to correspond to column 1 of the table below. Each data sheet must state the name, manufacturer, VOC content, hazardous component concentrations, density/specific gravity and vapor pressure of the material. If more room is necessary, attach additional material and/or equipment lists that include all information requested below. Use Section E-2 for vehicle spray painting operations and Section F for wood coating operations.

1. List all coating materials

MSDS Number	Name & Type of Material (Attach & number MSDS)	Estimated Usage (gal/yr)	VOC Content (lb/gal)	Method of Application (See list below)	Amount Shipped as Waste (gal/yr)
	See Attached				

Application Methods (for Column 5 of Item 1):

- a. High Volume Low Pressure (HVLP)    b. Pressure Atomization (Airless)    c. Combined Air and Airless
- d. Air Atomization    e. Electrostatic    f. Other (specify in Item 1, Column 5)

2. Describe substrate being coated (such as metal, plastic, etc.): Metal

Describe product being coated (such as file cabinets, bed frames, etc.): Modular Building Chassis, ADA ramps and Steps

3. Describe facilities for applying coatings. Attach manufacturer's specifications.

Type (Enclosure or Booth )	Size (L x W x H)	Date Installed	Exhaust Fan C.F.M.	Filter System Efficiency*
Enclosure	75' x 27' x 15"	01-Jan-07	n/a	n/a
Enclosure	31' x 15.5' x 9.5'	15-Aug-14	n/a	n/a

\*Provide written documentation of filter efficiency (i.e., manufacturer's data or source test data)

4. Will all spraying operations be conducted inside a booth or enclosed building? yes

If not, describe the area & explain how the overspray will be controlled:

5. Are any coatings baked, oven-cured or heat-treated? Which ones? At which temperature? Provide a complete description & specifications for the ovens. If ovens are fuel-fired, also include them in Section A of this application.

n/a

6. Describe clean-up of coating equipment and how clean-up solvent is disposed. (Complete Section G, if applicable.)

All Paint Spraying Equipment is Cleaned with Water



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## NON-TITLE V PERMIT APPLICATION

### SECTION E-2. VEHICLE & MOBILE EQUIPMENT COATING

Your facility may not require a Non-Title V permit if the facility is eligible to obtain an authority to operate (ATO) under a general permit. (Refer to [http://www.maricopa.gov/aq/divisions/permit\\_engineering/docs/pdf/vehicle-refinishing-permit-application.pdf](http://www.maricopa.gov/aq/divisions/permit_engineering/docs/pdf/vehicle-refinishing-permit-application.pdf) to determine eligibility.)

This section applies to auto body shops, collision repair shops and to any person or facility recoating previously paint-finished vehicles or parts of vehicles. This includes cars, large and small trucks, recreational and off-road vehicles of all types including, but not limited to, self-propelled movers of earth and/or materials. The refinishing of any machinery or wheeled trailer that is designed to be able to move or be towed on a highway is also included. Provide material safety data sheets (MSDS) for each material and number them to correspond to the table below. If more room is necessary, attach additional material and/or equipment lists that include all information requested below. Use Section E-1 for non-vehicle spray painting and surface coating operations. In Item 1, list all materials used in painting or coating operations, including but not limited to: paints, primers, enamels, catalysts, sealers, topcoats, thinners, reducers, accelerators, retarders, paint strippers, gun cleaners, cleaning solvents, and surface preparation materials.

1. List all materials applied.

MSDS Number	Name & Type of Material (Attach & number MSDS)	Estimated Usage (gal/yr)	VOC Content (lb/gal)	Method of Application (See list below)	Amount Shipped as Waste (gal/yr)
	n/a				

Application Methods (for Column 5 of Item 1):

- a. High Volume Low Pressure (HVLP)    b. Pressure Atomization (Airless)    c. Combined Air and Airless
- d. Air Atomization    e. Electrostatic    f. Other (specify in Item 1, Column 5)

2. Method of drying for sprayed items:  Air Dried     Oven Dried or Baked (include fuel-fired ovens in Sec. A of the application)

3. Gun cleaning equipment (specify each piece of equipment or refer to Section G):

How Many	Manufacturer & Model #	Date Installed	Solvent Name/Type (Attach MSDS)	Annual Solvent Usage (gal/yr)	Qty of Solvent Disposed (gal/yr)
	n/a				

4. Describe facilities for applying coatings. Attach manufacturer's specifications.

Type (Enclosure or Booth )	Size (L x W x H)	Date Installed	Exhaust Fan C.F.M.	Filter System Efficiency*
n/a				

\*Provide written documentation of filter efficiency (e.g., manufacturer's data or source test data)

5. Will all spraying operations be conducted inside a booth or enclosed building? \_\_\_\_\_

If not, describe the area & explain how the overspray will be controlled: \_\_\_\_\_



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### SECTION F. WOOD WORKING AND WOOD COATING OPERATIONS

Your facility may not require a Non-Title V permit if the facility is eligible to obtain an authority to operate (ATO) under a general permit. (Refer to [http://www.maricopa.gov/aq/divisions/permit\\_engineering/docs/pdf/woodworking-permit-application.pdf](http://www.maricopa.gov/aq/divisions/permit_engineering/docs/pdf/woodworking-permit-application.pdf) to determine eligibility.)

This section is intended for all processes, equipment and related emission controls associated with the manufacture and/or coating of furniture, fixtures or millwork made of wood or wood-derived material.

1. WOODWORKING EQUIPMENT. List all woodworking equipment including, but not limited to, saws, routers, planers, sanders, edgers, etc. List particulate (dust) control devices such as cyclones, baghouse, etc. Attach additional sheets if necessary.

Describe each piece of equipment. Include make & model number.	Qty	Power Rating (hp)	Exhausted to Control? (Yes or No)	Type of Control Device	Control Efficiency*	Where is the Control Device Vented? (indoors or outdoors)
n/a						

\*Provide written documentation of control efficiency (e.g., manufacturer's data or actual test data)

2. How much sawdust is produced annually? \_\_\_\_\_  cubic yards  tons

3. SURFACE PREPARATION AND COATING. List all VOC-containing materials applied. Provide Material Safety Data Sheets (MSDS) for each material and number them to correspond to the table below. Attach additional sheets if necessary.

MSDS Number	Name & Type of Material (Attach & number MSDS)	Estimated Usage (gal/yr)	VOC Content (lb/lb or gram/liter)	Method of Application (See list below)	Amount Shipped as Waste (gal/yr)
	n/a				

Application Methods (for Column 5 of Item 1):

- a. High Volume Low Pressure (HVLP)    b. Pressure Atomization (Airless)    c. Combined Air and Airless
- d. Air Atomization    e. Electrostatic    f. Other (specify in Item 1, Column 5)

4. Describe clean-up of coating equipment and how clean-up solvent is disposed. (Complete Section G, if applicable.)

n/a

5. Are you applying for consideration under:

- Rule 342    Appendix A    Appendix B    Appendix C    Rule 346    Appendix A    Appendix B



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NO

## SECTION G. SOLVENT CLEANING

1. Complete the table below for all solvent cleaning devices used. Attach manufacturer's equipment specifications/literature whenever available. the application, which states the name, manufacturer, VOC content, hazardous component concentrations, density/specific gravity and vapor p

Equipment Type <sup>a</sup> (See list below)	How Many	Manufacturer & Model	Date Installed	Solvent Surface Dimensions	Internal Volume (gallons)	Name of Solvent to be Used	Annual Solv Usage (gallo
		n/a					

2. On a separate attachment, provide any additional equipment information, usage rate and/or operating parameters for solvent cleaning device: halogenated solvents: **methylen chloride; perchloroethylene; trichloroethylene; 1,1,1 – trichloroethane; carbon tetrachloride; and/or**

### NOTES:

#### <sup>a</sup>SOLVENT CLEANING EQUIPMENT TYPES:

- A. Cold Cleaner
- B. Non-Vapor Batch Cleaning Machine With Remote Reservoir
- C. Non-Vapor Batch Cleaning Machine With Internal Reservoir
- D. Non-Vapor In-Line Cleaning Machine
- E. Non-Vapor Batch Cleaning Machine Using Solvent That Is He
- F. Special Non-Vapor Machine Using Blasting, Misting or High Pi
- G. Batch Loaded Vapor Cleaning Machine
- H. In-Line Vapor Cleaning Machine
- I. Other (specify) :

<sup>b</sup>Disposal of solvent by evaporation is not permitted. If waste solvent is redistilled on site, provide information on the still, including manufactu

n/a



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## NON-TITLE V PERMIT APPLICATION

### SECTION H. PLATING, ETCHING & OTHER METAL FINISHING PROCESSES

Use a separate sheet for each process line. If additional space is required, attach separate sheets following the same format as below. If any tank is heated by a flame, include the burner information in Section A. Evaporation from open ponds or evaporating tanks is not permitted for materials such as acids, alkalis, VOCs or materials containing VOCs.

1. PROCESS NARRATIVE DESCRIPTION :

n/a

2. On a separate page, provide a simple process (block flow) diagram with emission points and/or emission areas and control equipment identified. Also include a brief narrative description of this process. Be sure to indicate how waste solutions and rinse waters are disposed. If a wastewater evaporator is used, provide detailed information (make, model, capacity, fuel source, burner rating, etc.) on a separate page.

3. PROCESS TANKS. (Exclude rinse and wastewater tanks.)

Assigned Equipment Number	Capacity (gallons)	Name/Type of Chemical in Tank	Surface Area (sq ft)	Temp (°F)	Concentration (%)	pH	Exhaust Vent
		n/a					<input type="checkbox"/> to Air <input type="checkbox"/> to Control
							<input type="checkbox"/> to Air <input type="checkbox"/> to Control
							<input type="checkbox"/> to Air <input type="checkbox"/> to Control
							<input type="checkbox"/> to Air <input type="checkbox"/> to Control

4. LIST MATERIALS TO BE USED. The equipment number is to be taken from item 3, column 1. Include a copy of the Material Safety Data Sheet (MSDS) for each material and number the MSDS to correspond to the table below.

MSDS Number	Material	Concentration (% in bath)	Annual Usage (gal/yr or lb/yr)	Equipment Number in Which Used
	n/a			

5. AIR POLLUTION CONTROL EQUIPMENT. On a separate page, describe the design and operational parameters of the control device (liquid flow rate, gas flow rate, control efficiency for each compound in weight %, pH set point, how the pH is controlled, operating temperature, etc). Indicate if the capture system is push-pull, enclosed, or hood. If it is a push-pull system, state if anything (racks, works in progress, etc.) block push air during operation.

Control Equipment ID	Equipment Controlled <sup>1</sup>	Control Equipment Description & Capacity	Make & Model	Control Efficiency <sup>2</sup>	Flow Rate (cfm or fps)	Date Installed
		n/a				

<sup>1</sup>Specify the equipment number from item 3 for the piece of equipment whose emissions are being controlled by the control device.

<sup>2</sup>Provide written documentation of control efficiency (e.g., manufacturer's data or actual test data). Attach the manufacturer's specifications and drawings for each air pollution control device listed. Be sure that the locations of all flow devices and pressure/temperature gauges are indicated. Attach an operation and maintenance plan for each piece of control equipment listed above.



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## NON-TITLE V PERMIT APPLICATION

### SECTION I. DRY CLEANING EQUIPMENT

Your facility may not require a Non-Title V permit if the facility is eligible to obtain an authority to operate (ATO) under a general permit. (Refer to [http://www.maricopa.gov/aq/divisions/permit\\_engineering/docs/pdf/dry-cleaning-permit-application.pdf](http://www.maricopa.gov/aq/divisions/permit_engineering/docs/pdf/dry-cleaning-permit-application.pdf) to determine eligibility.)

1. Solvent used: n/a Estimated Usage (gallons/year): \_\_\_\_\_

2. Type of operation:  Dry-to-dry  Transfer

3. Date of installation of dry cleaning equipment: \_\_\_\_\_

4. List dry-cleaning-related equipment.

Describe Equipment, including Make & Model	Date Installed	How Many	Rated Capacity (lbs)	Exhaust Flow Rate	Exhaust Vent
n/a				<input type="checkbox"/> cfm <input type="checkbox"/> fps	<input type="checkbox"/> to Air <input type="checkbox"/> to Control
				<input type="checkbox"/> cfm <input type="checkbox"/> fps	<input type="checkbox"/> to Air <input type="checkbox"/> to Control
				<input type="checkbox"/> cfm <input type="checkbox"/> fps	<input type="checkbox"/> to Air <input type="checkbox"/> to Control
				<input type="checkbox"/> cfm <input type="checkbox"/> fps	<input type="checkbox"/> to Air <input type="checkbox"/> to Control
				<input type="checkbox"/> cfm <input type="checkbox"/> fps	<input type="checkbox"/> to Air <input type="checkbox"/> to Control
				<input type="checkbox"/> cfm <input type="checkbox"/> fps	<input type="checkbox"/> to Air <input type="checkbox"/> to Control
				<input type="checkbox"/> cfm <input type="checkbox"/> fps	<input type="checkbox"/> to Air <input type="checkbox"/> to Control

5. Are any dry cleaning machines coin operated?  Yes  No

6. Is the dry cleaning facility located in a building with any residences (even if the residence[s] are vacant at the time of this application)?  
 Yes  No

7. Is there a cooling tower?  Yes  No Tower capacity (gallons): \_\_\_\_\_ Cooling capacity (tons): \_\_\_\_\_

8. Emission controls  Refrigerated condensing coils  Built in  Separate condensing unit  Carbon adsorber  
 Other - Specify \_\_\_\_\_

9. Date of installation of control equipment: \_\_\_\_\_ (Attach manufacturer's specifications.)

10. Steam boilers used specifically for stripping adsorber and/or pressing. (Include all others in Section A.)

Fuel	Boiler Description (including Make & Model)	Date Installed	Gross Btu/hr, hp or other rating
	n/a		



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## NON-TITLE V PERMIT APPLICATION

### SECTION J. GRAPHIC ARTS

Your facility may not require a Non-Title V permit if the facility is eligible to obtain an authority to operate (ATO) under a general permit. (Refer to [http://www.maricopa.gov/aq/divisions/permit\\_engineering/docs/pdf/graphic-arts-permit-application.pdf](http://www.maricopa.gov/aq/divisions/permit_engineering/docs/pdf/graphic-arts-permit-application.pdf) to determine eligibility.)

This section applies to screen, letterpress, flexographic, and lithographic processes, including related coating and laminating processes.

1. Equipment list. (List each press individually.)

Assigned Equipment Number	Press Manufacturer & Model	Date Installed	Impression Area (sq in)	Press Type*	How Many	Exhaust Flow Rate	Exhaust Vent	Control Device
	n/a					<input type="checkbox"/> cfm <input type="checkbox"/> fps	<input type="checkbox"/> to Air <input type="checkbox"/> to Control	
						<input type="checkbox"/> cfm <input type="checkbox"/> fps	<input type="checkbox"/> to Air <input type="checkbox"/> to Control	
						<input type="checkbox"/> cfm <input type="checkbox"/> fps	<input type="checkbox"/> to Air <input type="checkbox"/> to Control	
						<input type="checkbox"/> cfm <input type="checkbox"/> fps	<input type="checkbox"/> to Air <input type="checkbox"/> to Control	
						<input type="checkbox"/> cfm <input type="checkbox"/> fps	<input type="checkbox"/> to Air <input type="checkbox"/> to Control	
						<input type="checkbox"/> cfm <input type="checkbox"/> fps	<input type="checkbox"/> to Air <input type="checkbox"/> to Control	
						<input type="checkbox"/> cfm <input type="checkbox"/> fps	<input type="checkbox"/> to Air <input type="checkbox"/> to Control	

\*(F) - Flexographic; (L) Lithographic - specify heatset web, sheet-fed, or cold-set; (G) Gravure; (LP) Letter Press; (S) Screen; Other (please specify)

2. Materials List

List all materials including, but not limited to, inks, fountain solution, blanket wash, varnishes, roller wash, etch solutions, fixers, developers, replenishers, alcohol substitutes, finishers, adhesives, solvents, and cleanup materials. Complete the table below for each material. Provide material safety data sheets (MSDS) for each material and number them to correspond to the table below.

MSDS Number	Material	Annual Usage or Throughput (gal/yr or lb/yr)	VOC Content (% by weight)	Amount Shipped as Waste (gal/yr or lb/yr)
	n/a			

3. Substrate Type:  Porous  Non-porous  Coated  Uncoated

4. Describe Control Devices. Provide flow diagrams and/or briefly describe how volatile organic compounds (VOC) emissions are controlled. Include equipment type, manufacturer, model, date of installation, rating, efficiency, ID or serial number, and location. Attach vendor data sheets and general design details. Provide Operation & Maintenance Plans for each control device.

n/a



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## NON-TITLE V PERMIT APPLICATION

### SECTION K-1. CONCRETE BATCH PLANTS, LOADING STATIONS AND/OR BAGGING OPERATIONS

This section is intended for all processes, equipment and related emission controls for concrete batch plants, loading stations and/or bagging operations. Provide flow diagrams and layouts for each process. An operation and maintenance plan for each air pollution control device is required. Describe how the annual quantity figures were developed. If aggregate crushing occurs in conjunction with this process, you must also complete Section Y.

1. Type Of Operation  Concrete Batch Plant  Dry Mix Concrete  Bagging Operation  Loading Station  
 Other N/A

2. Raw Material. List all materials handled, stored, processed, used, mixed, treated, or emitted.

Material Type/Transfer Operation	Maximum Projected Annual Usage or Throughput (tons/yr)	Actual Annual Usage or Throughput from Previous 12 Months (tons/yr)
Sand delivered to ground storage		
Aggregate delivered to ground storage		
Sand transfer to conveyor (account for multiple transfer points)*		
Aggregate transfer to conveyor (account for multiple transfer points)*		
Sand transfer to elevated storage bin		
Cement transfer to elevated silo		
Cement supplement (such as flyash) transfer to elevated silo		
Weigh hopper loading (sand and aggregate only)		
Mixer loading - central mix (cement and supplement only)		
Truck loading - truck mix (cement and supplement only)		
Other (specify):		

\*For sand and aggregate transfer to conveyor, account for multiple transfer points. For example, if 100 tons of sand is transferred three times to different conveyors, the total throughput of sand is 300 tons.

3. Processing. Describe each piece of equipment utilizing the table below. List weigh hoppers, conveyers, mixers, etc. Assign an equipment number in the table below and label the attached flow diagram accordingly. Attach additional pages if necessary.

Equipment Number	Make Model & Serial Number	How Many?	Date Of Manufacture	Maximum Design Throughput	Exhaust To	
					Air	Control
	n/a					

Continued On Next Page



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## NON-TITLE V PERMIT APPLICATION

### SECTION K-1. CONCRETE BATCH PLANTS - CONTINUED

4. Maximum Capacity Of Concrete Batch Plant (tons/hr): \_\_\_\_\_

5. Number Of Conveyors: \_\_\_\_\_

6. Control Devices. (Attach an Operation And Maintenance Plan for each control device)

Equipment Number	Equipment Controlled <sup>1</sup>	Type of Device	Make, Model & Serial Number	Maximum Design Air Flow Rate (cfm)	Control Efficiency <sup>2</sup> (% Weight)
		n/a			

<sup>1</sup> Specify the equipment number from item 4, column 1 for the piece of equipment whose emissions are being controlled by the device.

<sup>2</sup> Provide written documentation of control efficiency (e.g., manufacturer's data or actual test data).

7. Vehicle Travel On Unpaved Roads. Indicate the number of miles traveled on-site annually on unpaved roads for each speed and vehicle class specified below.

Vehicle Type	Vehicle Miles Traveled Annually (VMT)			
	10 MPH	15 MPH	20 MPH	Other Speed: _____
Light Duty (e.g., pickup trucks, cars)				
Medium Duty (e.g., front end loaders, fork lifts)				
Heavy Duty (e.g., haul trucks, cranes)				

Continue To Section K-4



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## NON-TITLE V PERMIT APPLICATION

### SECTION K-2. NON-METALLIC MINERAL MINING AND PROCESSING

(except Concrete Batch Plants [section K-1] And Asphalt Plants [section K-3])

This section is intended for all processes, equipment and related emission controls for sand and gravel plants. Provide flow diagrams and layouts for each process. An operation and Maintenance plan for each air pollution control device is required. Describe how the annual figures were developed.

1. Materials. List all materials handled, stored, processed, used, mixed, treated, or emitted.

Material	Maximum Projected Annual Usage or Throughput (tons/yr)	Actual Annual Usage or Throughput from Previous 12 Months (tons/yr)
Sand		
Aggregate		
Other (specify): n/a		
Other (specify):		
Other (specify):		

2. Process Narrative Description:

3. Maximum Design Capacity Of Mineral Mining And Processing Plant (tons/hr): \_\_\_\_\_

4. Process Equipment. Describe each piece of equipment used for mining and processing operations, including (but not limited to) crushers, screens, weigh hoppers, conveyers, stackers, mixers, etc. Assign equipment numbers in the table below and label the attached flow diagram accordingly. Attach additional pages if necessary.

Equipment Number	Make Model & Serial Number	How Many?	Date Of Manufacture	Maximum Design Throughput	Exhaust To	
					Air	Control
	n/a					

5. Control Devices. (Attach an Operation And Maintenance Plan for each control device)

Equipment Number	Equipment Controlled <sup>1</sup>	Type of Device	Make, Model & Serial Number	Maximum Design Air Flow Rate (cfm)	Control Efficiency <sup>2</sup> (% Weight)
		n/a			

<sup>1</sup> Specify the equipment number from item 4, column 1 for the piece of equipment whose emissions are being controlled by the device.

<sup>2</sup> Provide written documentation of control efficiency (e.g., manufacturer's data or actual test data).

6. Vehicle Travel On Unpaved Roads. Indicate the number of miles traveled on-site annually on unpaved roads for each speed and vehicle class specified below.

Vehicle Type	Vehicle Miles Traveled Annually (VMT)			
	10 MPH	15 MPH	20 MPH	Other Speed:
Light Duty (e.g., pickup trucks, cars)				
Medium Duty (e.g., front end loaders, fork lifts)				
Heavy Duty (e.g., haul trucks, cranes)				

Continue To Section K-4



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## NON-TITLE V PERMIT APPLICATION

### SECTION K-3. ASPHALT PRODUCTION

This section is intended for all process, equipment and related emission controls for asphalt plants. Provide flow diagrams and layouts for each process. An operation and maintenance plan for each air pollution control device is required. Describe how the annual quantity figures were developed. If you own/operate aggregate crushing equipment which operates on-site with this batch plant, you must also complete Section Y. Complete Section A of this application for fuel-burning dryers and heaters.

- Maximum Design Production Capacity: \_\_\_\_\_ Tons Per hour \_\_\_\_\_ Tons per year
- Actual Production Rate: \_\_\_\_\_ Tons per hour
- Daily Hours Of Operation: \_\_\_\_\_ Hours per day
- Type Of Plant:  Batch Mix  Continuous Mix
- Dryer Fuel Type & Heat Rating:  Natural Gas  Fuel Oil (Specify Grade): \_\_\_\_\_  Diesel  On Spec. Used Oil  
 Other Fuel (Specify): \_\_\_\_\_ Heat Rating (Btu/hr): \_\_\_\_\_
- Asphalt Heater (if applicable):  Electric  Fuel Fired Fuel Type: \_\_\_\_\_  
Heat Rating (Btu/hr): \_\_\_\_\_
- Aggregate Material Used (check all that apply):  Virgin Aggregate  Reclaimed Asphalt Pavement (RAP)  
 Rubber Or Rubber-like Material
- Control Devices. (Attach an Operation And Maintenance Plan for each control device)

Equipment Number	Equipment Controlled <sup>1</sup>	Type of Device	Make, Model & Serial Number	Maximum Design Air Flow Rate (cfm)	Control Efficiency <sup>2</sup> (% Weight)
		n/a			

<sup>1</sup> Specify the equipment number from item 4, column 1 for the piece of equipment whose emissions are being controlled by the device.

<sup>2</sup> Provide written documentation of control efficiency (e.g., manufacturer's data or actual test data).

9. Vehicle Travel On Unpaved Roads. Indicate the number of miles traveled on-site annually on unpaved roads for each speed and vehicle class specified below.

Vehicle Type	Vehicle Miles Traveled Annually (VMT)			
	10 MPH	15 MPH	20 MPH	Other Speed: _____
Light Duty (e.g., pickup trucks, cars)				
Medium Duty (e.g., front end loaders, fork lifts)				
Heavy Duty (e.g., haul trucks, cranes)				

Continue To Section K-4



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## NON-TITLE V PERMIT APPLICATION

### SECTION K-4. NON-METALLIC MINERAL PROCESSING - CONTINUED

Applicants Completing Sections K-1, K-2, Or K-3 Must Also Complete This Section.

1. Maximum Number Of Aggregate, Mixer, And/or Batch Trucks Exiting The Facility On Any Day: \_\_\_\_\_

2. Number Of Acres Of Sand And Aggregate Storage Piles: \_\_\_\_\_

3. Number Of Acres Of Disturbed Surface Area At The Site<sup>1</sup>: \_\_\_\_\_

4. Is the facility a stationary source that is located contiguous or adjacent to another facility with an MCAQD or ADEQ air permit?  
 Yes  No

a. If the answer to 4 is Yes, are the facilities under common control?<sup>2</sup>  Yes  No

b. If the answer to 4a is Yes, are the facilities part of the same industrial grouping (having the same two-digit SIC code) or is there a support relationship between the two facilities?<sup>3</sup>  Yes  No

c. If the answers to 4, 4a and 4b are Yes, list the collocated business(es):

Business Name: \_\_\_\_\_ Address: \_\_\_\_\_

Business Name: \_\_\_\_\_ Address: \_\_\_\_\_

#### NOTES:

<sup>1</sup> DISTURBED SURFACE AREA is defined as a portion of the earth's surface (or material placed thereupon) which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed native condition, thereby increasing the potential for the emission of fugitive dust.

<sup>2</sup> COMMON CONTROL is determined on a case-by-case basis, and can be established by common ownership, decision-making authority, or a contract-for-service relationship or support/dependency relationship.

<sup>3</sup> SUPPORT FACILITIES are considered to be part of the same industrial grouping as that of the primary facility it supports even if the support facility has a different two digit SIC code. Support facilities are typically those which convey, store, or otherwise assist in the production of the principal product.

5. Vehicle Travel On Unpaved Roads. Indicate the number of miles traveled on-site annually on unpaved roads for each speed and vehicle class specified below.

Vehicle Type	Vehicle Miles Traveled Annually (VMT)			
	10 MPH	15 MPH	20 MPH	Other Speed: _____
Light Duty (e.g., pickup trucks, cars)				
Medium Duty (e.g., front end loaders, fork lifts)				
Heavy Duty (e.g., haul trucks, cranes)				

#### 6. PORTABLE SOURCE: LOCATION OF OPERATION

If the facility is a portable source, please list the address(es) of operation for the previous 5 year period

Dates		Address or Driving Directions
From	To	
		n/a



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## NON-TITLE V PERMIT APPLICATION

### SECTION L. OTHER DUST GENERATING OPERATIONS

This section is intended for all dust-generating operations not covered elsewhere in the permit application.

1. Are routine dust-generating operations performed at this facility that disturb a surface area of 0.10 acre or greater?  Yes  No
2. How many acres of disturbed land are located at this facility? \_\_\_\_\_
3. Are any unpaved parking lots located at this facility?  Yes  No
4. Are any unpaved haul/access roads present at this facility?  Yes  No
5. If the answer to item 4 is "yes", how many vehicle trips are made daily on each unpaved road? \_\_\_\_\_
6. Are bulk materials handled, stored or transported at this facility? Bulk materials include, but are not limited to: non-metallic minerals, soil, demolition debris, cotton, trash, saw dust, feed, grain, fertilizers, fluff from shredders, dry concrete, or any other material that is capable of producing fugitive dust.  Yes  No
7. If the answer to item 6 is "yes", list the type and amount (tons per year) of bulk material(s) handled, stored and/or transported:
 

a. _____	c. _____
b. _____	d. _____
8. Are any blasting operations using explosives performed at this facility?  Yes  No
9. Are any open storage piles located at this facility?  Yes  No
10. If the answer to item 9 is "yes", how many acres do the storage piles cover? \_\_\_\_\_
11. Do you have any unpaved staging or material storage areas?  Yes  No
12. Do you have any easements, rights-of-way or access roads for utilities (transmission of electricity, natural gas, oil, water, or gas)?  Yes  No
13. Briefly describe how trackout is controlled at exits from unpaved roads at this facility that lead to paved areas accessible to the public. \_\_\_\_\_
14. Submit a dust control plan with this application if this facility is involved in dust-generating operations that equal or exceed 0.10 acre (4,356 square feet). Include the following:
  - a. Name(s), address(es), and phone numbers of person(s) responsible for the submittal and implementation of the dust control plan and responsible for the dust-generating operation.
  - b. A drawing, on 8½" x 11" paper, that shows entire project site/facility boundaries, acres to be disturbed with linear dimensions, nearest public roads, north arrow, and planned exit locations onto paved areas accessible to the public.
  - c. Appropriate control measures, or a combination thereof, for every actual and potential dust-generating operation.
  - d. One contingency control measure must be identified for all dust-generating operations.
  - e. The maximum number of vehicle trips on unpaved haul/access roads each day (including number of employee vehicles, earthmoving equipment, haul trucks, and water trucks).
  - f. Dust suppressants to be applied, method, frequency, and intensity of application; type, number, and capacity of application equipment; and information environmental impacts and approvals or certifications related to appropriate and safe use for ground application.
  - g. Specific surface treatment(s) and/or control measures utilized to control material trackout and sedimentation where unpaved roads and/or access points join paved areas accessible to the public.

For further guidance completing the dust control plan, review the dust control plan document located at: <http://www.maricopa.gov/aq/divisions/compliance/dust/PermitPackage.aspx> or contact the dust compliance division at (602) 506-6010.



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## NON-TITLE V PERMIT APPLICATION

### SECTION M. ABRASIVE BLASTING

This Section Is Intended For All Processes, Equipment, And Related Emission Controls Associated With Abrasive Blasting Operations.

Type of Abrasive Blasting Equipment:  Stationary  Portable

1. ABRASIVE BLASTING EQUIPMENT LIST: List all abrasive blasting equipment. Attach additional sheets if necessary.

Specify Equipment Type (blast Booth, Room, Enclosure, Cabinet, Automatic Machine) - Include Make And Model Number	Abrasive Blasting Method Used*	How Many?	Internal Volume (ft <sup>3</sup> )	Confined Or Unconfined	Vented: Indoors Or Outdoors	Equipment Exhaust	
						Vent To Air	Vent To Control
3 sided enclosure	dry	1	30,375	confined	outdoors	x	

\*Examples of abrasive blasting methods may include: wet abrasive blasting, hydroblasting, vacuum blasting, dry blasting, unconfined blasting, other .

2. Is abrasive blasting performed daily or is it part of the facility's primary work activities?  Yes  No

3. How is the abrasive blast unit powered (electric, generator)? compressed air

(If powered by an internal combustion engine, complete section B of this application)

4. Blast Media: Indicate the type of quantity of each blast media used and attach a material safety data sheet (MSDS).

Type Of Blast Media	Maximum Daily Usage (lbs/day)	Maximum Annual Usage (tons/yr)	Is Blast Media Carb Certified?*		
			Yes	No	Not Sure
Copper Slag	1,000	5			x

\* Certified by California Air Resources Board (CARB) pursuant to Section 92530 of Subchapter 6, Title 17, California Code of Regulations. A list of certified abrasives can be found at: <http://www.arb.ca.gov/ba/certabr/co/co.htm>

5. Describe substrate being blasted (e.g. metal, stone, concrete, etc.): metal

6. Describe substrate being removed (e.g., non-lead paint, lead paint, rust, etc.): rust

7. If leaded paint was indicated on item 5, indicate the percent concentration of lead in the paint: \_\_\_\_\_

8. Describe control devices:

Type Of Control Device <sup>1</sup>	Make, Model, & Serial Number	Maximum Design Air Flow Rate (cfm)	Control Efficiency (% By Weight) <sup>2</sup>
	n/a		

<sup>1</sup> Attach an operation and maintenance plan for each piece of equipment listed above.

<sup>2</sup> Provide written documentation of control efficiency (e.g., manufacturer's data or actual test data).





# Maricopa County

Air Quality Department

NO

## SECTION X-2. NON-POINT AREA EMISSION SOURCES FOR HAZARDOUS AIR POLLUTANTS

Completion Of This Section Is Mandatory For All Source Categories With A Primary Sic Code Listed In MCAQD Rule 372 Table 1 And For Actual Hazardous Air Pollutant (hap) Emission Rate Of Any Single Federal Hap Above The Hourly Or Annual De minimis Level Specified In Rule 372 may be found at: [http://www.maricopa.gov/aq/divisions/planning\\_analysis/rules/docs/372-0706.pdf](http://www.maricopa.gov/aq/divisions/planning_analysis/rules/docs/372-0706.pdf)

Source Or Equipment Name (1)	HAP Name And/Or CAS Number (2)	HAP Emissions Rate		Dimensions Of Release Source(5)			Building Dimension	
		(lb/hr) (3)	(tons/yr) (4)	Length (feet)	Width (feet)	Height (feet)	Length (feet)	Width (feet)
n/a								

**General Instructions:**

- (1) Identify each federal hazardous air pollutant (HAP) emission source and each HAP which is not collected by a capture system and is released to the atmosphere as a HAP source.
- (2) Refer to the list of federal HAPS on the last page of the application.
- (3) Pounds per hour (lb/hr) is actual emission rate estimated or measured by applicant to be released from the emission source.
- (4) Tons per year is actual annual emission rate estimated or measured by applicant to be released from the emission source. This value should take into account all releases.
- (5) Release structure: If the non-point (area) emissions source is located inside a building, provide the dimensions of the building. Otherwise, indicate zero for building dimensions.
- (6) Distance to nearest property line is the closest distance from the release structure to the property line.

Revised 13Nov15



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## NON-TITLE V PERMIT APPLICATION

### SECTION Y. OTHER SOURCES

This section is intended for all emissions related activities, equipment and applicable emission controls which are not covered in previous sections. In response to item 2, provide a detailed step-by-step narrative, including how raw materials are handled, stored, processed, mixed, treated, and converted to finished products. Provide flow rates, temperatures, pressures, and other appropriate details concerning each process. Whenever available, provide manufacturer's data sheets and literature. Provide flow diagrams and layouts for each process. Describe in detail how waste materials are generated, handled, stored, processed, mixed, treated and disposed of. An Operation and Maintenance Plan for each air pollution control equipment is required. List each material that is partially recovered, salvaged or otherwise reclaimed. Provide estimates of the quantities of such material recoveries on an annual basis. Describe how the annual quantity figures were developed. USE A SEPARATE SHEET FOR EACH PROCESS OR ACTIVITY.

1. Name of Process, Equipment Grouping or Activity: \_\_\_\_\_

2. Narrative description:

n/a

3. Equipment List. Include machinery, storage silos, tanks, emission control devices, etc., in this list.

Assigned Equipment Number	Describe each Piece of Equipment Include Make & Model	Date of Installation or Modification	How Many	HP, KVA Gallons or Other Ratings (Specify Units)	Exhaust - Vent to Air	Exhaust - Vent to Control (Identify)

4. Material List. List all materials handled, stored, processed, used, mixed, treated, or emitted from the facility, including but not limit to chemicals, mixtures, resins, cleaning compounds, etc. Identify each material in sufficient detail and provide material safety data sheets (MSDS) for each material.

Material	Annual Usage or Throughput (gal/yr or lb/yr)	Chemical Composition (% by weight)	Material Reclaimed or Shipped as Waste (gal/yr or lb/yr)	Equipment Number in Which Used

5. Describe Control Devices

Type of Device	Name/ID/Capacity	Equipment Controlled <sup>1</sup>	Date of Installation	Control Efficiency <sup>2</sup> (% Weight)

<sup>1</sup> Specify the equipment number from item 3 for the piece of equipment whose emissions are being controlled by the control device.

<sup>2</sup> Provide written documentation of control efficiency (e.g., manufacturer's data or source test data). Attach the manufacturer's specifications and drawings for each air pollution control device listed. Be sure that the locations of all flow devices and pressure/temperature gauges are indicated. Attach an operation and maintenance plan for each piece of control equipment listed above.



# Maricopa County

Air Quality Department

Return completed form to:  
Maricopa County Air Quality Department  
1001 N Central Ave, Suite 125, Phoenix, AZ 85004  
Phone (602) 506-6010 Fax (602) 372-0587  
AQPermits@mail.maricopa.gov

## NON-TITLE V PERMIT APPLICATION

### SECTION Z. AIR POLLUTANT EMISSIONS

Provide a summary of the projected actual air emissions on an annual basis for the entire site in the following summary tables. Attach detailed calculations to support the figures. **If supporting calculations are not included with the application, the application will be deemed incomplete.**

Pollutant	Emissions (lb/yr)
Carbon Monoxide (CO)	
Oxides Of Nitrogen (NO <sub>x</sub> )	
Oxides Of Sulfur (SO <sub>x</sub> )	
Particulates Of 10 Microns Or Smaller (PM <sub>10</sub> )	
Total Suspended Particulates (TSP), Including PM <sub>10</sub>	
Volatile Organic Compounds (VOCs) <sup>1</sup>	10,429
Lead	
Federal hazardous air pollutants (list each one separately):	
Toluene	8
Xylene	43
Ethylene Glycol	4,910
Methanol	20

<sup>1</sup>VOCs are defined by EPA at: [http://www.epa.gov/ttn/naaqs/ozone/ozonetech/def\\_voc.htm](http://www.epa.gov/ttn/naaqs/ozone/ozonetech/def_voc.htm)

Do not include the emissions from motor vehicles. Include the emissions from stationary sources, portable sources, test areas, experimental facilities, evaporative losses, storage and handling losses, fuel loading and unloading losses, etc. Specifically identify the following in detailed calculations:

1. Emissions From Each Point Source And Each Stack
2. Capture Efficiencies
3. Control Efficiencies
4. Overall Efficiencies
5. Fugitive Emissions
6. Non-point (area) Emissions

For particulate (dust) emissions, describe the types of particulates being emitted and the quantities of emissions for each type. Whenever a material is identified by a trade name, also provide its generic name and its chemical abstract service (CAS) number.

Help sheets for calculating emissions from specific industries or processes can be obtained at:  
[http://www.maricopa.gov/aq/divisions/planning\\_analysis/emissions\\_inventory/instructions.aspx](http://www.maricopa.gov/aq/divisions/planning_analysis/emissions_inventory/instructions.aspx)

If you need help completing the application package, please see our website or contact 602-506-5102.  
<http://www.maricopa.gov/aq>



# Maricopa County

Air Quality Department

NO

## FEDERAL HAZARDOUS AIR POLLUTANTS LIST

(Federal Clean Air Act, Title I, Section 112(b))

CAS No.	Chemical name	CAS No.	Chemical name	CAS No.	Chemical name	Chemical name
75070	Acetaldehyde	121697	N,N-Diethyl aniline (N,N-Dimethylaniline)	101688	Methylene diphenyl diisocyanate (MDI)	Chemical
60355	Acetamide	64675	Diethyl sulfate	101779	4,4'-Methylenedianiline	Antimo
75058	Acetonitrile	119904	3,3-Dimethoxybenzidine	91203	Naphthalene	Arsenic
98862	Acetophenone	60117	Dimethyl aminoazobenzene	98953	Nitrobenzene	Beryllium
53963	2-Acetylaminofluorene	119937	3,3'-Dimethyl benzidine	92933	4-Nitrobiphenyl	Cadmium
107028	Acrolein	79447	Dimethyl carbamoyl chloride	100027	4-Nitrophenol	Chromium
79061	Acrylamide	68122	Dimethyl formamide	79469	2-Nitropropane	Cobalt
79107	Acrylic acid	57147	1,1-Dimethyl hydrazine	684935	N-Nitroso-N-methylurea	Coke C
107131	Acrylonitrile	131113	Dimethyl phthalate	62759	N-Nitrosodimethylamine	Cyanide
107051	Allyl chloride	77781	Dimethyl sulfate	59892	N-Nitrosomorpholine	Glycol
92671	4-Aminobiphenyl	534521	4,6-Dinitro-o-cresol, and salts	56382	Parathion	Lead C
62533	Aniline	51285	2,4-Dinitrophenol	82688	Pentachloronitrobenzene (Quintobenzene)	Manganese
90040	o-Anisidine	121142	2,4-Dinitrotoluene	87865	Pentachlorophenol	Fine metal
1332214	Asbestos	123911	1,4-Dioxane (1,4-Diethyleneoxide)	108952	Phenol	Nickel
71432	Benzene (including benzene from gasoline)	122667	1,2-Diphenylhydrazine	106503	p-Phenylenediamine	Polycyclic
92875	Benzidine	106898	Epichlorohydrin (1-Chloro-2,3-epoxypropane)	75445	Phosgene	Radiation
98077	Benzotrifluoride	106887	1,2-Epoxybutane	7803512	Phosphine	Selenium
100447	Benzyl chloride	140885	Ethyl acrylate	7723140	Phosphorus	
92524	Biphenyl	100414	Ethyl benzene	85449	Phthalic anhydride	
117817	Bis(2-ethylhexyl)phthalate (DEHP)	51796	Ethyl carbamate (Urethane)	1336363	Polychlorinated biphenyls (Aroclors)	
542881	Bis(chloromethyl)ether	75003	Ethyl chloride (Chloroethane)	1120714	1,3-Propane sultone	For all
75252	Bromoform	106934	Ethylene dibromide (Dibromoethane)	57578	beta-Propiolactone	"comp
106990	1,3-Butadiene	107062	Ethylene dichloride (1,2-Dichloroethane)	123386	Propionaldehyde	specific
156627	Calcium cyanamide	107211	Ethylene glycol	114261	Propoxur (Baygon)	unique
133062	Captan	151564	Ethyleneimine (Aziridine)	78875	Propylene dichloride (1,2-Dichloropropane)	chemical
63252	Carbaryl	75218	Ethylene oxide	75569	Propylene oxide	
75150	Carbon disulfide	96457	Ethylene thiourea	75558	1,2-Propylenimine(2-Methyl aziridine)	[1] X°C
56235	Carbon tetrachloride	75343	Ethylidene dichloride (1,1-Dichloroethane)	91225	Quinoline	dissoci
463581	Carbonyl sulfide	50000	Formaldehyde	106514	Quinone	
120809	Catechol	76448	Heptachlor	100425	Styrene	
33904	Chloramben	118741	Hexachlorobenzene	96093	Styrene oxide	[2] Incl
57749	Chlordane	87683	Hexachlorobutadiene	1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin	diethyl
7782505	Chlorine	77474	Hexachlorocyclopentadiene	79345	1,1,2,2-Tetrachloroethane	where:
79118	Chloroacetic acid	67721	Hexachloroethane	127184	Tetrachloroethylene (Perchloroethylene)	
532274	2-Chloroacetophenone	822060	Hexamethylene-1,6-diisocyanate	7550450	Titanium tetrachloride	n = 1, 2
108907	Chlorobenzene	680319	Hexamethylphosphoramide	108883	Toluene	
510156	Chlorobenzilate	110543	Hexane	95807	2,4-Toluene diamine	R = alk
67663	Chloroform	302012	Hydrazine	584849	2,4-Toluene diisocyanate	
107302	Chloromethyl methyl ether	7647010	Hydrochloric acid	95534	o-Toluidine	R' = H
126998	Chloroprene	7664393	Hydrogen fluoride (Hydrofluoric acid)	8001352	Toxaphene (chlorinated camphene)	sulfate
1319773	Cresols/Cresylic acid (isomers and mixture)	123319	Hydroquinone	120821	1,2,4-Trichlorobenzene	
95487	o-Cresol	78591	Isophorone	79005	1,1,2-Trichloroethane	[3] Incl
108394	m-Cresol	58899	Lindane (all isomers)	79016	Trichloroethylene processing	glass, 1
106445	p-Cresol	108316	Maleic anhydride	95954	2,4,5-Trichlorophenol	diameter
98828	Cumene	67561	Methanol	86062	2,4,6-Trichlorophenol	
94757	2,4-D, salts and esters	72435	Methoxychlor	121448	Triethylamine	
3547044	DDE	74839	Methyl bromide (Bromomethane)	1582098	Trifluralin	[4] Incl
334883	Diazomethane	74873	Methyl chloride (Chloromethane)	540841	2,2,4-Trimethylpentane	ring an
132649	Dibenzofurans	71556	Methyl chloroform (1,1,1-Trichloroethane)	108054	Vinyl acetate	
96128	1,2-Dibromo-3-chloropropane	60344	Methyl hydrazine	593602	Vinyl bromide	
84742	Dibutylphthalate	74884	Methyl iodide (Iodomethane)	75014	Vinyl chloride	[5] A ty
106467	1,4-Dichlorobenzene(p)	108101	Methyl isobutyl ketone (Hexone)	75354	Vinylidene chloride (1,1-Dichloroethylene)	decay
91941	3,3-Dichlorobenzidine	624839	Methyl isocyanate	1330207	Xylenes (isomers and mixture)	
111444	Dichloroethyl ether (Bis(2-chloroethyl)ether)	80626	Methyl methacrylate	95476	o-Xylenes	
542756	1,3-Dichloropropene	1634044	Methyl tert butyl ether	108383	m-Xylenes	
62737	Dichlorvos	101144	4,4-Methylene bis(2-chloroaniline)	106423	p-Xylenes	
111422	Diethanolamine	75092	Methylene chloride (Dichloromethane)			

Revised 13Nov15

MSDS Number	Name and Type of Material (Attach and number SDS)	Estimated Usage (gal/yr)	VOC Content (lb/gal)	Method of Application	Amount Shipped as Waste
1	TBL6-A/& TBL-A Armourliner Truck Bed Liner with Activator	20	3.2	a	0.1
2	Aquence KL 7919	2,200	0.066	b	20
3	Sun/Steel #38 Dark Grey	1225	2.35	b	12
4	Sun/Steel #1403 Ultra Deep Base Gloss	5	3.08	b	0
5	Sun/Steel # 1438 Yellow Tint Base	35	2.54	b	1
6	Sun/Steel # 1400 Hi-Hide White Gloss	10	2.78	b	0.1
7	Sun/Steel # 1404 Neutral Base Gloss	160	3.17	b	2
8	Sun/Steel # 1401 Pastel Base Gloss	5	2.77	b	0
9	Sun/Steel # 1490 Gloss Black	250	3.05	b	3
10	Sun/Steel # 1402 Deep Base Gloss	1600	2.97	b	10
11	Klean Strip Green Odorless Mineral Spirits	10	1.9	b	0
12	Klean Strip Denatured Alcohol	5	6.17	f (rags)	0

voc calculations

# 1 - Armor liner 20gal @ 3.2 lbs/ Gal =64 lbs
#2 Aquence KL 7919 2200 gal @ 0.066 = 132 lbs
#3-10 Sun/Steel Paints 3290 gal @ 3.17 =10,429
#11- Klean-Strip Odorless Mineral Spirits 10@ 1.9= 19
#12 Klean strip Denatured Alcohol 5 @ 6.62 =33.1

HAP Calculations

Toluene 20 gal @ 8.5 lbs Gal X 4.5% = 7.65 lbs  
Xylene 20 Gal @ 8.5 lbs Gal x 25.5% = 43.35 lbs  
Ethylene Glycol 3290 gal 9.95 lbs/gal x 15% =4,910 lbs  
Methanol 5 gal @ 6.65 lbs/gal x 60% = 19.95 lbs



#1

## MATERIAL SAFETY DATA SHEET

### SECTION I - MANUFACTURERS INFORMATION

PRODUCT NAME: **TBL6-A /& TBL-A ARMOURLINER TRUCK BED LINER WITH ACTIVATOR**

MSDS PREPARATION DATE: 10.15.10

MANUFACTURER: CPS COATINGS, INC.

624 AIRPORT DRIVE, SHREVEPORT, LA 71107.

PRODUCT INFORMATION: (318) 222-6100

EMERGENCY TELEPHONE (CHEMTREC): 800-424-9300 (CCN16851)

While we believe that the data herein is accurate & derived from quality sources, this data is not to be taken as a warrantee or product liability. It is offered solely for your consideration and personal protection.

### SECTION II - HAZARDOUS INGREDIENTS

Ingredients	CAS Number	VAPOR PRESSURE mm HG @ TEMP	WEIGHT PERCENT
*TOLUENE	108-88-3	38 mm Hg @78F	4.5%
*XYLENE	1330-20-7	9.5 mm Hg @68F	25.5%
*PM ACETATE	108-65-6	3.7 mm Hg @68F	6%
ACETONE	67-64-1	180 mm Hg @68F	7%
*Homopolymer of Hexamethylene Diisocyanate	28182-81-2	N/A	11.4%
*Hexamethylene -1, 6-Diisocyanate	822-06-0	N/A	<0.6%

\* Indicates toxic chemicals subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

### SECTION III - PHYSICAL DATA

Boiling Point: 279°F.

Vapor Density (Air=1): Heavier than Air

Specific Gravity: 1.02

Evaporation Rate: Slower than Ether

Weight Solids: 54

V.O.C. = 3.2lbs. Per mixed gallon

Vapor Pressure (mmHg)-5. 10

Melting Point (°C): N/A

Solubility in Water = None

Appearance and Odor: Black - Mild

Total Weight Per Gallon: 8.5

### SECTION IV - FIRE AND EXPLOSION DATA

Flash Point (Method Used): T.C.C., 85° F.

Flammable Explosion: LEL = 1%

UEL 7%

Extinguishing Media (1) DRY CHEMICAL, (2) CO2, (3) FOAM

Special Fire Fighting Procedures: Dry Chemical. Carbon Dioxide. Water Spray or Regular Foam. Full protective equipment including self-contained breathing apparatus should be used. If water is used, fog nozzles are preferable, Water may be used to cool closed containers to prevent pressure build up due to extreme heat. CAUTION- A straight stream of water will spread fire.

Unusual Fire and Explosion Hazards: Vapor accumulation will flash and or explode, if ignited. Containers may burst explosively if overheated in fire. Cool with water spray or fog, Empty containers also present fire explosion hazard due to residual vapors. Keep containers tightly closed, during emergency situations, over-exposure to decomposition products may cause a health hazard with no symptoms immediately apparent. Obtain medical attention.

## SECTION V - HEALTH HAZARD DATA

### EFFECTS OF OVEREXPOSURE:

**ACUTE:** Inhalation - Anesthetic. Irritation or respiratory tract of acute nervous system depression. Overexposure may result in headaches and nausea possibly followed by loss or consciousness. Ingestion Gastrointestinal irritation including vomiting can occur. Aspiration of material into lungs may result in chemical pneumonitis which can be fatal. Skin contact may result in irritation and absorption through Skin. Eye contact will irritate.

**CHRONIC:** Some reports have associated repeated. Prolonged overexposure to solvents with permanent central nervous system changes. Misuse by concentrating and inhaling the contents may be harmful or fatal. See Target Organ Effect Sheet for further information about effects of overexposure and medical conditions generally aggravated by exposure. The Target Organ Effects Sheet is a integral part of this Material Safety Data Sheet; any duplication of the MSDS must include it.

**SKIN CONTACT:** Prolonged contact with the isocyanate can cause reddening, swelling, rash, scaling or blistering. In those who have developed a skin sensitization. These symptoms can develop as a result of contact with very small amounts of liquid material or even as a result of vapor only exposure. Chronic skin exposure to solvents may cause effects similar to those identified under chronic inhalation effects.

**EXPOSURE LIMITS:** The Mobay Guideline level of 0.5 mg/M<sup>3</sup>- TWA and 1.0 mg/M<sup>3</sup> - STEL for Homopolymer of HDI and 0.20 ppm ceiling for HDI monomer are internal guides based on limited data. They are provided as guides pending the review of future data.

California Proposition 65 requires that warnings be given regarding exposures to chemicals listed by the State as being known to cause cancer, birth defects or other reproductive harm. This product is not intentionally formulated with chemicals that are listed by California as causing the above effects. However we are informed by the suppliers of some chemical ingredients used in this product that they may contain trace, but detectable levels of some listed chemicals as impurities. Therefore trace, but detectable, levels of listed chemicals may be present in this product.

### EMERGENCY & FIRST AID PROCEDURES:

**Vapor Inhalation** - Restore breathing. Remove to fresh air. Keep warm and quiet. Notify a physician.

**Eye Contact** - Flush IMMEDIATELY with copious amounts of running water for at least 15 minutes. Take to physician for definitive medical treatment.

**Skin Contact** - Clean and wash affected area with water. Consult a physician.

**Ingestion** - **DO NOT INDUCE VOMITING!** Call physician **Immediately!**

**TOXICITY:** Slightly Toxic by ingestion.

## SECTION VI - REACTIVITY DATA

**STABILITY:** Stable

**CONDITIONS TO AVOID:** Heat, open flames, electrical and static discharge.

**INCOMPATIBILITY (materials to avoid):** Strong acid, alkalis, and oxidizers.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Unknown other than CO<sub>2</sub> and possible CO and Carbon smoke.

**HAZARDOUS POLYMERIZATION:** Will not occur.

## SECTION VII - SPILL OR LEAK PROCEDURES

### STEPS IF SPILLED:

Ventilate area. Remove all possible sources of ignition.  
Avoid prolonged breathing of vapors.  
Confine spill with Inert absorbent and clean up with spark-proof tools.

### WASTE DISPOSAL:

Dispose of in accordance with local, state, and federal regulations.

Landfill or incinerate only in approved facility by licensed contractor.

Do not incinerate in closed container.

## SECTION VIII - SPECIAL PROTECTION INFORMATION

**RESPIRATORY PROTECTION:** Use NIOSH/MSHA TC23C Chemical / Mechanical type filter system to remove a combination of particles. Gas & vapors. Use an air supplied respirator if necessary.

**VENTILATION:** Use adequate ventilation in volume and pattern to keep TLV's and PEL's (Section II) below recommended levels. and flammable limits in air (Section IV) below the level necessary to produce explosion of fire. General mechanical ventilation should comply with OSHA 1910,94.

**PROTECTIVE GLOVES.** To prevent prolonged exposure, use rubber gloves. Solvents may be absorbed through the skin.

**EYE PROTECTION:** Safety glasses or goggles with splash guards or side shields.

**OTHER PROTECTIVE EQUIPMENT:** Prevent prolonged skin contact to contaminated clothing.

## SECTION IX - SPECIAL PRECAUTIONS

**HANDLING PRECAUTIONS;** Do not store over 120°F. Avoid spillage and/or the creation of airborne aluminum dust. When storing large quantities, store in building designed and protected against flammable liquids. Use static lines when mixing and transferring material. Do not allow material to free rag more than five (5) inches.

### OTHER PRECAUTIONS:

#### 'FOR INDUSTRIAL USE ONLY'

DO NOT TAKE INTERNALLY. IF INGESTED, DO NOT INDUCE VOMITING. CONSULT A PHYSICIAN. DO NOT FLAME CUT, WELD, OR BRAZE ON COATED MATERIAL WITHOUT NIOSA/MSHA TC23C RESPIRATOR.

#### DISCLAIMER:

THE INFORMATION CONTAINED HEREIN IS BASED ON TECHNICAL DATA WHICH WE BELIEVE TO BE RELIABLE. HOWEVER, SINCE THE CONDITIONS UNDER WHICH THIS INFORMATION MAY BE APPLIED ARE BEYOND OUR CONTROL, WE CAN ASSUME NO LIABILITY FOR RESULTS OF ITS APPLICATION. ONLY PERSONS HAVING SUFFICIENT TECHNICAL SKILL TO MAKE INFORMED JUDGEMENTS REGARDING ITS APPLICATION SHOULD USE THIS INFORMATION.

## SECTION X – TRANSPORTATION INFORMATION

**DOT SHIPPING NAME:** PAINT

**HAZARD CLASS:** 3

**UN NUMBER:** UN1263

**PACKING GROUP:** II (2)

Health: - 2

Flammability: - 3

Reactivity: - 0



Revision Number: 002.1

Issue date: 10/29/2014

**1. PRODUCT AND COMPANY IDENTIFICATION**

Product name: **AQUENCE KL 7919 FP KNOWN AS DORUS FP 7919** IDH number: 1013601  
 Product type: Adhesive  
 Restriction of Use: None identified  
 Company address: Henkel Corporation, One Henkel Way, Rocky Hill, Connecticut 06067  
 Region: United States  
 Contact information: Telephone: (860) 571-5100  
 MEDICAL EMERGENCY Phone: Poison Control Center 1-877-671-4608 (toll free) or 1-303-592-1711  
 TRANSPORT EMERGENCY Phone: CHEMTREC 1-800-424-9300 (toll free) or 1-703-527-3887  
 Internet: www.henkelna.com

**2. HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW**

**WARNING:** CAUSES SKIN IRRITATION.  
 CAUSES SERIOUS EYE IRRITATION.  
 HARMFUL IF INHALED.

**HAZARD CLASS**

**HAZARD CATEGORY**

ACUTE TOXICITY INHALATION	4
SKIN IRRITATION	2
EYE IRRITATION	2A

**PICTOGRAM(S)**



**Precautionary Statements**

**Prevention:** Avoid breathing vapors, mist, or spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear eye and face protection. Wear protective gloves.  
**Response:** IF ON SKIN: Wash with plenty of soap and water. IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to remove. Continue rinsing. Call a poison control center or physician if you feel unwell. If skin irritation occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing.  
**Storage:** Not prescribed  
**Disposal:** Not prescribed

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Hazardous Component(s)	CAS Number	Percentage*
Asphalt	8052-42-4	5 - 10
Limestone	1317-65-3	5 - 10
Kaolin	1332-58-7	1 - 5
Ammonium hydroxide	1336-21-6	0.1 - 1
Hydrogen sulfide	7783-06-4	0.1 - 1
Quartz (SiO <sub>2</sub> )	14808-60-7	0.1 - 1

\* Exact percentage is a trade secret. Concentration range is provided to assist users in providing appropriate protections.

#### 4. FIRST AID MEASURES

<b>Inhalation:</b>	Move to fresh air. If breathing is difficult, give oxygen. If symptoms develop and persist, get medical attention. If not breathing, give artificial respiration.
<b>Skin contact:</b>	Immediately wash skin thoroughly with soap and water. Remove contaminated clothing and footwear. If symptoms develop and persist, get medical attention.
<b>Eye contact:</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get immediate medical attention.
<b>Ingestion:</b>	If material is ingested, immediately contact a physician or poison control center. DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.
<b>Symptoms:</b>	See Section 11.

#### 5. FIRE FIGHTING MEASURES

<b>Extinguishing media:</b>	Water spray (fog), foam, dry chemical or carbon dioxide. Use extinguishing measures appropriate to local circumstances and the surrounding environment.
<b>Special firefighting procedures:</b>	Keep unnecessary personnel away. Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.
<b>Unusual fire or explosion hazards:</b>	This product is an aqueous mixture which will not burn. If evaporated to dryness, the solid residue may pose a slight fire hazard. Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.
<b>Hazardous combustion products:</b>	Oxides of carbon.

#### 6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

<b>Environmental precautions:</b>	Prevent further leakage or spillage if safe to do so. Prevent contamination of soil and water.
<b>Clean-up methods:</b>	Keep unnecessary personnel away. Ensure adequate ventilation. Wear appropriate protective equipment and clothing during clean-up. Small spills can be absorbed with vermiculite, clay or other suitable non-biodegradable absorbent material, scooped up and placed in containers. For large spills dike ahead and collect liquid. Dispose of contaminated material as waste according to Section 13.

## 7. HANDLING AND STORAGE

**Handling:** Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Do not taste or swallow. Do not breathe gas/fumes/vapor/spray. Wash thoroughly after handling. Keep container closed.

**Storage:** For safe storage, store at or above 0 °C (32°F)

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Asphalt	0.5 mg/m <sup>3</sup> TWA (as benzene solubles) Inhalable fraction.	None	None	None
Limestone	10 mg/m <sup>3</sup> TWA Total dust.	5 mg/m <sup>3</sup> PEL Respirable fraction. 15 mg/m <sup>3</sup> PEL Total dust.	None	None
Kaolin	2 mg/m <sup>3</sup> TWA Respirable fraction.	15 mg/m <sup>3</sup> PEL Total dust. 5 mg/m <sup>3</sup> PEL Respirable fraction.	None	None
Ammonium hydroxide	None	None	None	None
Hydrogen sulfide	1 ppm TWA 5 ppm STEL	20 ppm Ceiling 50 ppm MAX. CONC 10 minutes once, but only if no other measurable exposure occurs.	None	None
Quartz (SiO <sub>2</sub> )	0.025 mg/m <sup>3</sup> TWA Respirable fraction.	2.4 MPPCF TWA Respirable. 0.1 mg/m <sup>3</sup> TWA Respirable. 0.3 mg/m <sup>3</sup> TWA Total dust.	None	None

**Engineering controls:** Work should be done in an adequately ventilated area (i.e., ventilation sufficient to maintain concentrations below one half of the PEL and other relevant standards). Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination.

**Respiratory protection:** Use NIOSH approved respirator if there is potential to exceed exposure limit(s). Observe OSHA regulations for respirator use (29 CFR 1910.134).

**Eye/face protection:** Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists.

**Skin protection:** Use impermeable gloves and protective clothing as necessary to prevent skin contact. Wear suitable protective clothing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Liquid
<b>Color:</b>	Gray, Black
<b>Odor:</b>	Slight
<b>Odor threshold:</b>	Not available.
<b>pH:</b>	9.8 - 10.8
<b>Vapor pressure:</b>	Not determined
<b>Boiling point/range:</b>	100 °C (212°F)

Melting point/ range:	0 °C (32°F) (Freezing point)
Specific gravity:	1.1
Vapor density:	Heavier than air.
Flash point:	Not applicable
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not determined
Evaporation rate:	Slower than diethyl ether.
Solubility in water:	Not determined
Partition coefficient (n-octanol/water):	Not determined
VOC content:	8 g/l (minus exempt solvents and water).
Viscosity:	Not available.
Decomposition temperature:	Not available.

## 10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions of storage and use.
Hazardous reactions:	Will not occur.
Hazardous decomposition products:	Oxides of carbon.
Incompatible materials:	Contact with water reactive materials (such as oleum) can cause exothermic reactions.
Reactivity:	Not available.
Conditions to avoid:	Do not freeze.

## 11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes

**Potential Health Effects/Symptoms**

**Inhalation:** Inhalation of vapors or mists of the product may be irritating to the respiratory system.  
**Skin contact:** No skin irritation can be expected from single short-term exposure to this product. Prolonged or repeated contact may produce some irritation.  
**Eye contact:** This product may cause irritation to the eyes.  
**Ingestion:** Ingestion of this product is unlikely. However, ingestion of product may produce gastrointestinal irritation and disturbances.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Asphalt	None	Central nervous system, Irritant, Respiratory
Limestone	None	Nuisance dust
Kaolin	Oral LD50 (RAT) = > 5,000 mg/kg Dermal LD50 (RAT) = > 5,000 mg/kg	Nuisance dust
Ammonium hydroxide	Oral LD50 (RAT) = 350 mg/kg	Irritant, Corrosive
Hydrogen sulfide	Inhalation LC50 (RAT) = 1.5 mg/l Inhalation LC50 (RAT) = 0.38 mg/l Inhalation LC50 (RAT, 14 min) = 1.5 mg/l Inhalation LC50 (RAT, 960 min) = > 0.38 mg/l	Blood, Developmental, Eyes, Irritant, Nervous System, Sensory
Quartz (SiO2)	None	Immune system, Lung, Some evidence of carcinogenicity

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Asphalt	No	Group 2B	No
Limestone	No	No	No
Kaolin	No	No	No
Ammonium hydroxide	No	No	No
Hydrogen sulfide	No	No	No
Quartz (SiO2)	Known To Be Human Carcinogen.	Group 1	No

**12. ECOLOGICAL INFORMATION**

**Ecological information:** Do not empty into drains, soil or bodies of water.

**13. DISPOSAL CONSIDERATIONS**

Information provided is for unused product only.

**Recommended method of disposal:** Legal disposition of wastes is the responsibility of the owner/generator of the waste. Applicable federal, state and/or local regulations must be followed during treatment, storage, or disposal of waste containing this product.

**Hazardous waste number:** Not a RCRA hazardous waste.

**14. TRANSPORT INFORMATION**

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

**U.S. Department of Transportation Ground (49 CFR)**

**Proper shipping name:** Not regulated  
**Hazard class or division:** None  
**Identification number:** None  
**Packing group:** None

**International Air Transportation (ICAO/IATA)**

Proper shipping name: Not regulated  
Hazard class or division: None  
Identification number: None  
Packing group: None

**Water Transportation (IMO/IMDG)**

Proper shipping name: Not regulated  
Hazard class or division: None  
Identification number: None  
Packing group: None

**15. REGULATORY INFORMATION**

**United States Regulatory Information**

**TSCA 8 (b) Inventory Status:** All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.  
**TSCA 12 (b) Export Notification:** None above reporting de minimis  
**CERCLA/SARA Section 302 EHS:** None above reporting de minimis  
**CERCLA/SARA Section 311/312:** Immediate Health, Delayed Health  
**CERCLA/SARA Section 313:** None above reporting de minimis  
**California Proposition 65:** This product contains a chemical known in the State of California to cause cancer. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

**Canada Regulatory Information**

**CEPA DSL/NDL Status:** One or more components are not listed on, and are not exempt from listing on either the Domestic Substances List or the Non-Domestic Substances List.

**16. OTHER INFORMATION**

This safety data sheet contains changes from the previous version in sections: New Safety Data Sheet format.

**Prepared by:** Jennifer Altman, Sr. Regulatory Affairs Specialist  
**Issue date:** 10/29/2014

**DISCLAIMER:** The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation and its affiliates ("Henkel") does not assume responsibility for any results obtained by persons over whose methods Henkel has no control. It is the user's responsibility to determine the suitability of Henkel's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any Henkel's products. In light of the foregoing, Henkel specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel's products. Henkel further disclaims any liability for consequential or incidental damages of any kind, including lost profits.

#3

Safety Data Sheet

Product Name: SUN/STEEL #38 F2 Dark Gray

3/31/2015

**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT NAME: Sun/Steel  
SYNONYMS: W/R Alkyd Primer  
PRODUCT CODE: 38 F2 Dark Gray  
MANUFACTURER: Bert's Paint Inc.  
ADDRESS: 2401 S. 12<sup>th</sup> Street  
Phoenix, AZ 85034

EMERGENCY PHONE: 602-495-6000  
FAX PHONE: 602-523-9675

CHEMICAL FAMILY: Paint Waterbase

PRODUCT USE: Industrial Coating  
PREPARED BY: Michael Thornham

**SECTION 2: HAZARD(S) IDENTIFICATION**

Hazard Classification:  
Label Elements:

Hazard symbol:



(Irritant)

Inhalation:

May cause irritation to the respiratory system. Breathing vapors may affect the central nervous system. Move to fresh air.

Ingestion:

Harmful if swallowed. Do not induce vomiting

Skin:

Irritating to skin.

Eyes:

May cause irritation, tearing or redness

**This product contains ingredients that may contribute to the following potential chronic health effects:**

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Ingredient	Wt %	CAS #
Ammonia	0 - 1	7664-41-7
Ethylene glycol monobutyl ether	5 - 10	111-76-2

**SECTION 4: FIRST AID MEASURES**

**Ingestion:** Treat symptomatically. Rinse mouth with water. Give one or two glasses of water. Never give anything by mouth to an unconscious person. Only induce vomiting at the instruction of medical personnel. Get medical attention

**Inhalation:** Remove exposed person to fresh air if adverse effects are observed get medical attention.

**Skin Contact:** Remove contaminated clothing and shoes. Wash with soap and water, if skin irritation occurs, get medical attention.

**Eye Contact:** Wash out immediately with water for up to 10 minutes. If possible remove contact lenses. Get medical attention.

**SECTION 5: FIRE FIGHTING MEASURES**

**General Fire Hazards:** No unusual fire or explosion hazards noted.

**Extinguishing media:** Water spray. Dry chemical or foam. CO2 may be ineffective on large fires.

**Special protective equipment:** Wear full protective gear including self-containing breathing apparatus operated in a positive pressure mode with full face piece, coat pants, gloves and boots.

**Conditions to Avoid:** Excess heat may cause containers to rupture. Avoid freezing conditions.

**Incompatibility (Materials to Avoid):** Avoid strong alkaline and acids.

**Hazardous Decomposition:** CO, CO2, Oxides of Nitrogen

**Hazardous Polymerization:** Will not occur

**SECTION 6: ACCIDENTIAL RELEASE MEASURES**

**Action to be taken if material is released or spilled:**

Ventilate area. Avoid unnecessary skin contact. Stop and/or contain spill if it can be done safely, avoiding discharge into drains, sewers, or waterways. Collect by absorption, shovel and/or wet mopping. Also wipe, scrape or soak up in/with an inert material and put in a container for disposal. Avoid contact with eyes.

**Waste Disposal Method:**

Dispose of in accordance with Local, State and Federal Regulations.

**Precautions to be taken in Handling and Storing:**

Use with adequate ventilation. Avoid prolonged breathing of vapor. Avoid prolonged or repeated skin contact.

**OTHER PRECAUTIONS:**

Avoid all Sources of Heat.

**SECTION 7: HANDLING AND STORAGE**

**Precautions for safe handling:**

Observe good industrial hygiene practices. Provide adequate ventilation. Wear appropriate PPE.

Avoid contact with eyes and prolonged or repeated contact with skin. Avoid breathing mists or vapors. When using do not eat, drink or smoke.

Stir well before use. Keep container closed when not in use.

Minimize contact with air to reduce contamination with mold, fungus, or other organisms which could cause decomposition or spoilage. Wash thoroughly after handling.

**SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION**

**General Information:** Use personal protective equipment as required.

**Respiratory Protection:**

Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material. A respiratory protection program compliant with all applicable regulation must be followed whenever workplace conditions require the use of a respirator. Use of proper respiratory protection is recommended.

**Ventilation:**

Maintain good ventilation to keep product vapor concentrations below specified limit values.

**Skin Protection:**

**Protective Gloves:** Suitable gloves should be used to limit effect of skin over-exposure.

**Eye Protection:**

Goggles or face shield are recommended.

**Other Protective Clothing or Equipment:**

To prevent repeated or prolonged skin contact, wear appropriate PPE and boots/shoes.

**Work/Hygienic Practices:**

Eye washes and safety showers in the workplace are recommended, as well as barrier creams, daily showers and a change of clothes.

**SECTION 9: PHYSICAL AND CHEMICAL CHARACTERISTICS**

Boiling Range	212 °F (water) 100 °C
Solubility in water	Soluble
Flash Point	ND
Solids by weight	41.60 ± 0.5
Volatile by weight	49.76 ± 0.5
Specific gravity	1.194
Weight per gallon	9.95
Coatings VOC	2.35 lbs (282.49 g/L)
Material VOC	1.00 lbs (119.61 g/L)
Appearance	Viscous Liquid
pH	8 - 9
Vapor density	Heavier than air
Odor	mild

**SECTION 10: STABILITY AND REACTIVITY DATA**

**Stability:** material is stable under normal conditions

**Conditions to avoid:** - Do not freeze

**Incompatibility:** (Materials to avoid): Strong oxidizing agents, Alkalis and Bases

**Hazardous Reactions:** Will not occur:

**Hazardous Decomposition:** Thermal decomposition or combustion may generate smoke, carbon monoxide, carbon dioxide, hydrogen chloride, chlorinated compounds, and other products of other incomplete combustion. Irritating and toxic substances may be emitted upon combustion, burning, or decomposition of dry solids.

**SECTION 11: TOXICOLOGICAL INFORMATION****Acute Toxicity:**

Product: No information available.

**Component:**2-butoxyethanol

TWA 20 ppm

PEL 50ppm 240mg/m<sup>3</sup>

Respiratory sensitization: No information available.

Skin sensitization: No information available

**Chronic Effects:**

Carcinogenicity: No information available

Mutagenicity: No information available

Reproductive: No information available

**SECTION 12: ECOLOGICAL INFORMATION****Product:**

No ecological information on this product regarding acute toxicity to fish, aquatic Invertebrates or aquatic plants.

**Component:**Acute toxicity to Fish:

No information available on Aquatic Invertebrates and Aquatic Plants

**SECTION 13: DISPOSAL CONSIDERATIONS****Disposal Instructions:**

Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State and local regulations. Empty containers retain product residue, follow label warnings even after container is emptied.

**SECTION 14: TRANSPORTATION INFORMATION**

DOT Not regulated

IMDG Not regulated

IATA Not regulated

**SECTION 15: REGULATORY INFORMATION****US Federal Regulations -**

USA Yes, all components are listed or exempt

**SARA 311/312 hazardous categorization****Hazardous Categories**

Acute Health Hazard	No
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of pressure Hazard	No
Reactive Hazard	No

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

2-Butoxyethanol

111-76-2

**SECTION 16: OTHER INFORMATION****HMIS Hazard ID:**

Health	2
Flammability	0
Physical Hazards	0

Rating: 0 Minimal  
 1 Slight  
 2 Moderate  
 3 Serious  
 4 Severe \* chronic health effect

**DISCLAIMER:**

*The information contained herein has been received from raw material suppliers and other sources and is believed to be reliable. Bert's Paint Inc. makes no warranty expressed or implied, regarding the accuracy of this data or the results to be obtained from the use thereof. Bert's Paint Inc. assumes no responsibility for injury from the use of this product described herein.*

#4

Safety Data Sheet

Product Name: SUN/STEEL #1403 Ultra Deep Base Gloss

3/25/2015

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Sun/Steel  
SYNONYMS: W/R Alkyd Gloss Enamel  
PRODUCT CODE: 1403 Ultra Deep Base Gloss  
MANUFACTURER: Bert's Paint Inc.  
ADDRESS: 7401 S. 12<sup>th</sup> Street  
Phoenix, AZ 85034

EMERGENCY PHONE: 602-495-6000  
FAX PHONE: 602-523-9675

CHEMICAL FAMILY: Paint Waterbase

PRODUCT USE: Industrial Coating  
PREPARED BY: Michael Thornham

SECTION 2: HAZARD(S) IDENTIFICATION

Hazard Classification:  
Label Elements:

Hazard symbol:  (Irritant)  
Inhalation: May cause irritation to the respiratory system. Breathing vapors may affect the central nervous system. Move to fresh air.  
Ingestion: Harmful if swallowed. Do not induce vomiting.  
Skin: Irritating to skin.  
Eyes: May cause irritation, tearing or redness.

This product contains ingredients that may contribute to the following potential chronic health effects:  
Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	Wt %	CAS #
Ammonia	0 - 1	7664-41-7
Ethylene glycol monobutyl ether	10 -15	111-76-2

SECTION 4: FIRST AID MEASURES

Ingestion: Treat symptomatically. Rinse mouth with water. Give one or two glasses of water. Never give anything by mouth to an unconscious person. Only induce vomiting at the instruction of medical personnel. Get medical attention.  
Inhalation: Remove exposed person to fresh air if adverse effects are observed get medical attention.  
Skin Contact: Remove contaminated clothing and shoes. Wash with soap and water, if skin irritation occurs, get medical attention.  
Eye Contact: Wash out immediately with water for up to 10 minutes. If possible remove contact lenses. Get medical attention.

## SECTION 5: FIRE FIGHTING MEASURES

**General Fire Hazards:** No unusual fire or explosion hazards noted.

**Extinguishing media:** Water spray. Dry chemical or foam. CO<sub>2</sub> may be ineffective on large fires.

**Special protective equipment:** Wear full protective gear including self-containing breathing apparatus operated in a positive pressure mode with full face piece, coat pants, gloves and boots.

**Conditions to Avoid:** Excess heat may cause containers to rupture. Avoid freezing conditions.

**Incompatibility (Materials to Avoid):** Avoid strong alkaline and acids.

**Hazardous Decomposition:** CO, CO<sub>2</sub>, Oxides of Nitrogen

**Hazardous Polymerization:** Will not occur

## SECTION 6: ACCIDENTIAL RELEASE MEASURES

**Action to be taken if material is released or spilled:**

Ventilate area. Avoid unnecessary skin contact. Stop and/or contain spill if it can be done safely, avoiding discharge into drains, sewers, or waterways. Collect by absorption, shovel and/or wet mopping. Also wipe, scrape or soak up in/with an inert material and put in a container for disposal. Avoid contact with eyes.

**Waste Disposal Method:**

Dispose of in accordance with Local, State and Federal Regulations.

**Precautions to be taken in Handling and Storing:**

Use with adequate ventilation. Avoid prolonged breathing of vapor. Avoid prolonged or repeated skin contact.

**OTHER PRECAUTIONS:**

Avoid all Sources of Heat.

## SECTION 7: HANDLING AND STORAGE

**Precautions for safe handling:**

Observe good industrial hygiene practices. Provide adequate ventilation. Wear appropriate PPE.

Avoid contact with eyes and prolonged or repeated contact with skin. Avoid breathing mists or vapors. When using do not eat, drink or smoke.

Stir well before use. Keep container closed when not in use.

Minimize contact with air to reduce contamination with mold, fungus, or other organisms which could cause decomposition or spoilage. Wash thoroughly after handling.

## SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

**General Information:** Use personal protective equipment as required.

**Respiratory Protection:**

Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material. A respiratory protection program compliant with all applicable regulation must be followed whenever workplace conditions require the use of a respirator. Use of proper respiratory protection is recommended.

**Ventilation:**

Maintain good ventilation to keep product vapor concentrations below specified limit values.

**Skin Protection:**

**Protective Gloves:** Suitable gloves should be used to limit effect of skin over-exposure.

**Eye Protection:**

Goggles or face shield are recommended.

**Other Protective Clothing or Equipment:**

To prevent repeated or prolonged skin contact, wear appropriate PPE and boots/shoes.

**Work/Hygienic Practices:**

Eye washes and safety showers in the workplace are recommended, as well as barrier creams, daily showers and a change of clothes.

**SECTION 9: PHYSICAL AND CHEMICAL CHARACTERISTICS**

Boiling Range	212°F (water) 100°C
Solubility in water	Soluble
Flash Point	ND
Solids by weight	27.66 ± 0.5
Volatile by weight	60.77 ± 0.5
Specific gravity	1.046
Weight per gallon	8.72
Coatings VOC	3.08 lbs (369.72 g/L)
Material VOC	1.19 lbs (143.25 g/L)
Appearance	Viscous Liquid
pH	8 - 9
Vapor density	Heavier than air
Odor	mild

**SECTION 10: STABILITY AND REACTIVITY DATA**

Stability: material is stable under normal conditions

Conditions to avoid: Do not freeze

Incompatibility: (Materials to avoid): Strong oxidizing agents, Alkalis and Bases

Hazardous Reactions: Will not occur:

Hazardous Decomposition: Thermal decomposition or combustion may generate smoke, carbon monoxide, carbon dioxide, hydrogen chloride, chlorinated compounds, and other products of either incomplete combustion. Irritating and toxic substances may be emitted upon combustion, burning, or decomposition of dry solids.

**SECTION 11: TOXICOLOGICAL INFORMATION**

Acute Toxicity:

Product: No information available.

Component:

2-butoxyethanol

TWA 20 ppm

PEL 50ppm 240mg/m<sup>3</sup>

Respiratory sensitization: No information available.

Skin sensitization: No information available

Chronic Effects:

Carcinogenicity: No information available

Mutagenicity: No information available

Reproductive: No information available

**SECTION 12: ECOLOGICAL INFORMATION**

Product:

No ecological information on this product regarding acute toxicity to fish, aquatic Invertebrates or aquatic plants.

Component:

Acute toxicity to Fish:

No information available on Aquatic Invertebrates and Aquatic Plants

**SECTION 13 DISPOSAL CONSIDERATIONS**

## Disposal Instructions:

Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State and local regulations. Empty containers retain product residue, follow label warnings even after container is emptied.

**SECTION 14: TRANSPORTATION INFORMATION**

DOT Not regulated

IMDG Not regulated

IATA Not regulated

**SECTION 15: REGULATORY INFORMATION**

## US Federal Regulations -

USA Yes, all components are listed or exempt

SARA 311/312 hazardous categorizationHazardous Categories

Acute Health Hazard	No
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of pressure Hazard	No
Reactive Hazard	No

## Superfund Amendments and Reauthorization Act of 1986 (SARA)

2-Butoxyethanol 111-76-2

**SECTION 16: OTHER INFORMATION**

## HMIS Hazard ID:

Health	2
Flammability	0
Physical Hazards	0

Rating: 0 Minimal  
 1 Slight  
 2 Moderate  
 3 Serious  
 4 Severe \* chronic health effect

**DISCLAIMER:**

*The information contained herein has been received from raw material suppliers and other sources and is believed to be reliable. Bert's Paint Inc. makes no warranty expressed or implied, regarding the accuracy of this data or the results to be obtained from the use thereof. Bert's Paint Inc. assumes no responsibility for injury from the use of this product described herein.*

Safety Data Sheet

Product Name: SUN/STEEL #1438 Yellow Tint Base-

3/30/2015

45

**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT NAME: Sun/Steel  
SYNONYMS: W/R Alkyd Gloss Enamel  
PRODUCT CODE: 1438 Safety Yellow (Yellow Tint Base)  
MANUFACTURER: Bert's Paint Inc.  
ADDRESS: 2401 S. 12<sup>th</sup> Street  
Phoenix, AZ 85034

EMERGENCY PHONE: 602-495-6000  
FAX PHONE: 602-523-9675

CHEMICAL FAMILY: Paint Waterbase

PRODUCT USE: Industrial Coating

PREPARED BY: Michael Thornham

**SECTION 2: HAZARD(S) IDENTIFICATION**

Hazard Classification:  
Label Elements:

<p>Hazard symbol: (Irritant) </p> <p>Inhalation: May cause irritation to the respiratory system. Breathing vapors may affect the central nervous system. Move to fresh air.</p> <p>Ingestion: Harmful if swallowed. Do not induce vomiting</p> <p>Skin: Irritating to skin.</p> <p>Eyes: May cause irritation, tearing or redness</p>
--

This product contains ingredients that may contribute to the following potential chronic health effects:  
Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Ingredient	Wt %	CAS #
Ammonia	0 - 1.0	7664-41-7
Ethylene glycol monobutylether	10 - 15	111-76-2

**SECTION 4: FIRST AID MEASURES**

**Ingestion:** Treat symptomatically. Rinse mouth with water. Give one or two glasses of water. Never give anything by mouth to an unconscious person. Only induce vomiting at the instruction of medical personnel. Get medical attention

**Inhalation:** Remove exposed person to fresh air if adverse effects are observed get medical attention.

**Skin Contact:** Remove contaminated clothing and shoes. Wash with soap and water, if skin irritation occurs, get medical attention.

**Eye Contact:** Wash out immediately with water for up to 10 minutes. If possible remove contact lenses. Get medical attention.

**SECTION 5: FIRE FIGHTING MEASURES**

**General Fire Hazards:** No unusual fire or explosion hazards noted.

**Extinguishing media:** Water spray. Dry chemical or foam. CO2 may be ineffective on large fires.

**Special protective equipment:** Wear full protective gear including self-containing breathing apparatus operated in a positive pressure mode with full face piece, coat pants, gloves and boots.

**Conditions to Avoid:** Excess heat may cause containers to rupture. Avoid freezing conditions.

**Incompatibility (Materials to Avoid):** Avoid strong alkaline and acids.

**Hazardous Decomposition:** CO, CO2, Oxides of Nitrogen

**Hazardous Polymerization:** Will not occur

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Action to be taken if material is released or spilled:**

Ventilate area. Avoid unnecessary skin contact. Stop and/or contain spill if it can be done safely, avoiding discharge into drains, sewers, or waterways. Collect by absorption, shovel and/or wet mopping. Also wipe, scrape or soak up in/with an inert material and put in a container for disposal. Avoid contact with eyes.

**Waste Disposal Method:**

Dispose of in accordance with Local, State and Federal Regulations.

**Precautions to be taken in Handling and Storing:**

Use with adequate ventilation. Avoid prolonged breathing of vapor. Avoid prolonged or repeated skin contact.

**OTHER PRECAUTIONS:**

Avoid all Sources of Heat.

**SECTION 7: HANDLING AND STORAGE**

**Precautions for safe handling:**

Observe good industrial hygiene practices. Provide adequate ventilation. Wear appropriate PPE.

Avoid contact with eyes and prolonged or repeated contact with skin. Avoid breathing mists or vapors. When using, do not eat, drink or smoke.

Stir well before use. Keep container closed when not in use.

Minimize contact with air to reduce contamination with mold, fungus, or other organisms which could cause decomposition or spoilage. Wash thoroughly after handling.

**SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION**

**General Information:** Use personal protective equipment as required.

**Respiratory Protection:**

Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material. A respiratory protection program compliant with all applicable regulation must be followed whenever workplace conditions require the use of a respirator. Use of proper respiratory protection is recommended.

**Ventilation:**

Maintain good ventilation to keep product vapor concentrations below specified limit values.

**Skin Protection:**

Protective Gloves: Suitable gloves should be used to limit effect of skin over-exposure.

**Eye Protection:**

Goggles or face shield are recommended.

**Other Protective Clothing or Equipment:**

To prevent repeated or prolonged skin contact, wear appropriate PPE and boots/shoes.

**Work/Hygienic Practices:**

Eye washes and safety showers in the workplace are recommended, as well as barrier creams, daily showers and a change of clothes.

**SECTION 9: PHYSICAL AND CHEMICAL CHARACTERISTICS**

Boiling Range	212°F (water) 100°C
Solubility in water	Soluble
Flash Point	ND
Solids by weight	30.40 ± .5
Volatile by weight	55.18 ± .5
Specific gravity	1.079
Weight per gallon	8.99
Coatings VOC	2.54 lbs (304.37 g/L)
Material VOC	1.08 lbs (129.59 g/L)
Appearance	Viscous Liquid
pH	8 - 9
Vapor density	Heavier than air
Odor	mild

**SECTION 10: STABILITY AND REACTIVITY DATA**

**Stability:** material is stable under normal conditions

**Conditions to avoid:** - Do not freeze

**Incompatibility:** (Materials to avoid): Strong oxidizing agents, Alkalis and Bases

**Hazardous Reactions:** Will not occur:

**Hazardous Decomposition:** Thermal decomposition or combustion may generate smoke, carbon monoxide, carbon dioxide, hydrogen chloride, chlorinated compounds, and other products of other incomplete combustion. Irritating and toxic substances may be emitted upon combustion, burning, or decomposition of dry solids.

**SECTION 11: TOXICOLOGICAL INFORMATION****Acute Toxicity:**

Product: No information available.

**Component:**

2-butoxyethanol

TWA 20 ppm

PEL 50ppm 240mg/m<sup>3</sup>

Respiratory sensitization: No information available.

Skin sensitization: No information available

**Chronic Effects:**

Carcinogenicity: No information available

Mutagenicity: No information available

Reproductive: No information available

**SECTION 12: ECOLOGICAL INFORMATION****Product:**

No ecological information on this product regarding acute toxicity to fish, aquatic Invertebrates or aquatic plants.

**Component:**

Acute toxicity to Fish:

No information available on Aquatic Invertebrates and Aquatic Plants

**SECTION 13: DISPOSAL CONSIDERATIONS**

**Disposal Instructions:**

Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State and local regulations. Empty containers retain product residue, follow label warnings even after container is emptied.

**SECTION 14: TRANSPORTATION INFORMATION**

DOT Not regulated

IMDG Not regulated

IATA Not regulated

**SECTION 15: REGULATORY INFORMATION**

**US Federal Regulations -**

USA Yes, all components are listed or exempt

**SARA 311/312 hazardous categorization**

**Hazardous Categories**

Acute Health Hazard	No
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of pressure Hazard	No
Reactive Hazard	No

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

2-Butoxyethanol 111-76-2

**SECTION 16: OTHER INFORMATION**

**HMIS Hazard ID:**

Health	2
Flammability	0
Physical Hazards	0

- Rating: 0 Minimal  
 1 Slight  
 2 Moderate  
 3 Serious  
 4 Severe \* chronic health effect

**DISCLAIMER:**

*The information contained herein has been received from raw material suppliers and other sources and is believed to be reliable. Bert's Paint Inc. makes no warranty expressed or implied, regarding the accuracy of this data or the results to be obtained from the use thereof. Bert's Paint Inc. assumes no responsibility for injury from the use of this product described herein.*

# 6

Safety Data Sheet

Product Name: SUN/STEEL #1400 Hi-Hide White Gloss

3/25/2015

**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT NAME: Sun/Steel  
SYNONYMS: W/R Alkyd Gloss Enamel  
PRODUCT CODE: 1400 Hi Hide White Gloss  
MANUFACTURER: Bert's Paint Inc.  
ADDRESS: 2401 S. 12<sup>th</sup> Street  
Phoenix, AZ 85034

EMERGENCY PHONE: 602-495-6000  
FAX PHONE: 602-523-9675

CHEMICAL FAMILY: Paint Waterbase

PRODUCT USE: Industrial Coating  
PREPARED BY: Michael Thornham

**SECTION 2: HAZARD(S) IDENTIFICATION**

Hazard Classification:  
Label Elements:

<p>Hazard symbol: Inhalation:</p> <p>Ingestion: Skin: Eyes:</p>	<p>(Irritant) </p> <p>May cause irritation to the respiratory system. Breathing vapors may affect the central nervous system. Move to fresh air.</p> <p>Harmful if swallowed. Do not induce vomiting</p> <p>Irritating to skin.</p> <p>May cause irritation, tearing or redness</p>
---	--

This product contains ingredients that may contribute to the following potential chronic health effects:  
Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Ingredient	Wt %	CAS #
Ammonia	0 - 1	7664-41-7
Ethylene glycol monobutylether	10 - 15	111-76-2

**SECTION 4: FIRST AID MEASURES**

**Ingestion:** Treat symptomatically. Rinse mouth with water. Give one or two glasses of water. Never give anything by mouth to an unconscious person. Only induce vomiting at the instruction of medical personnel. Get medical attention

**Inhalation:** Remove exposed person to fresh air if adverse effects are observed get medical attention.

**Skin Contact:** Remove contaminated clothing and shoes. Wash with soap and water, if skin irritation occurs, get medical attention.

**Eye Contact:** Wash out immediately with water for up to 10 minutes. If possible remove contact lenses. Get medical attention.

## SECTION 5: FIRE FIGHTING MEASURES

**General Fire Hazards:** No unusual fire or explosion hazards noted.

**Extinguishing media:** Water spray. Dry chemical or foam. CO<sub>2</sub> may be ineffective on large fires.

**Special protective equipment:** Wear full protective gear including self-containing breathing apparatus operated in a positive pressure mode with full face piece, coat pants, gloves and boots.

**Conditions to Avoid:** Excess heat may cause containers to rupture. Avoid freezing conditions.

**Incompatibility (Materials to Avoid):** Avoid strong alkaline and acids.

**Hazardous Decomposition:** CO, CO<sub>2</sub>, Oxides of Nitrogen

**Hazardous Polymerization:** Will not occur

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**Action to be taken if material is released or spilled:**

Ventilate area. Avoid unnecessary skin contact. Stop and/or contain spill if it can be done safely, avoiding discharge into drains, sewers, or waterways. Collect by absorption, shovel and/or wet mopping. Also wipe, scrape or soak up in/with an inert material and put in a container for disposal. Avoid contact with eyes.

**Waste Disposal Method:**

Dispose of in accordance with Local, State and Federal Regulations.

**Precautions to be taken in Handling and Storing:**

Use with adequate ventilation. Avoid prolonged breathing of vapor. Avoid prolonged or repeated skin contact.

**OTHER PRECAUTIONS:**

Avoid all Sources of Heat.

## SECTION 7: HANDLING AND STORAGE

**Precautions for safe handling:**

Observe good industrial hygiene practices. Provide adequate ventilation. Wear appropriate PPE.

Avoid contact with eyes and prolonged or repeated contact with skin. Avoid breathing mists or vapors. When using, do not eat, drink or smoke.

Stir well before use. Keep container closed when not in use.

Minimize contact with air to reduce contamination with mold, fungus, or other organisms which could cause decomposition or spoilage. Wash thoroughly after handling.

## SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

**General Information:** Use personal protective equipment as required.

**Respiratory Protection:**

Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material. A respiratory protection program compliant with all applicable regulation must be followed whenever workplace conditions require the use of a respirator. Use of proper respiratory protection is recommended.

**Ventilation:**

Maintain good ventilation to keep product vapor concentrations below specified limit values.

**Skin Protection:**

**Protective Gloves:** Suitable gloves should be used to limit effect of skin over-exposure.

**Eye Protection:**

Goggles or face shield are recommended.

**Other Protective Clothing or Equipment:**

To prevent repeated or prolonged skin contact, wear appropriate PPE and boots/shoes.

**Work/Hygienic Practices:**

Eye washes and safety showers in the workplace are recommended, as well as barrier creams, daily showers and a change of clothes.

## SECTION 9: PHYSICAL AND CHEMICAL CHARACTERISTICS

Boiling Range	212°F (water) 100°C
Solubility in water	Soluble
Flash Point	ND
Solids by weight	37.40 ± .5
Volatile by weight	52.69 ± .5
Specific gravity	1.16
Weight per gallon	9.69
Coatings VOC	2.78 lbs (333.4 g/L)
Material VOC	1.14 lbs (136.6 g/L)
Appearance	Viscous Liquid
pH	8 - 9
Vapor density	Heavier than air
Odor	mild

## SECTION 10: STABILITY AND REACTIVITY DATA

**Stability:** material is stable under normal conditions

**Conditions to avoid:** - Do not freeze

**Incompatibility:** (Materials to avoid): Strong oxidizing agents, Alkalis and Bases

**Hazardous Reactions:** Will not occur:

**Hazardous Decomposition:** Thermal decomposition or combustion may generate smoke, carbon monoxide, carbon dioxide, hydrogen chloride, chlorinated compounds, and other products of other incomplete combustion. Irritating and toxic substances may be emitted upon combustion, burning, or decomposition of dry solids.

## SECTION 11: TOXICOLOGICAL INFORMATION

**Acute Toxicity:**

Product: No information available.

**Component:**

2-butoxyethanol

TWA 20 ppm

PEL 50ppm 240mg/m<sup>3</sup>

Respiratory sensitization: No information available.

Skin sensitization: No information available

**Chronic Effects:**

Carcinogenicity: No information available

Mutagenicity: No information available

Reproductive: No information available

## SECTION 12: ECOLOGICAL INFORMATION

**Product:**

No ecological information on this product regarding acute toxicity to fish, aquatic Invertebrates or aquatic plants.

**Component:**

Acute toxicity to Fish:

No information available on Aquatic Invertebrates and Aquatic Plants

**SECTION 13: DISPOSAL CONSIDERATIONS**

**Disposal Instructions:**

Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State and local regulations. Empty containers retain product residue, follow label warnings even after container is emptied.

**SECTION 14: TRANSPORTATION INFORMATION**

DOT Not regulated

IMDG Not regulated

IATA Not regulated

**SECTION 15: REGULATORY INFORMATION**

**US Federal Regulations -**

USA Yes, all components are listed or exempt

**SARA 311/312 hazardous categorization**

**Hazardous Categories**

Acute Health Hazard	No
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of pressure Hazard	No
Reactive Hazard	No

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

2-Butoxyethanol 111-76-2

**SECTION 16: OTHER INFORMATION**

**HMS Hazard ID:**

Health	1
Flammability	1
Physical Hazards	0

Rating: 0 Minimal  
 1 Slight  
 2 Moderate  
 3 Serious  
 4 Severe \* chronic health effect

**DISCLAIMER:**

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EE 1

Safety Data Sheet  
Product Name: SUN/STEEL #1404 Neutral Base Gloss

3/25/2015

**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT NAME: Sun/Steel  
SYNONYMS: W/R Alkyd Gloss Enamel  
PRODUCT CODE: 1404 Neutral Base Gloss  
MANUFACTURER: Bert's Paint Inc.  
ADDRESS: 2401 S. 12<sup>th</sup> Street  
Phoenix, AZ 85034

EMERGENCY PHONE: 602-495-6000  
FAX PHONE: 602-523-9675

CHEMICAL FAMILY: Paint Waterbase

PRODUCT USE: Industrial Coating  
PREPARED BY: Michael Thornham

**SECTION 2: HAZARD(S) IDENTIFICATION**

Hazard Classification:  
Label Elements:

Hazard symbol: Inhalation:  Ingestion: Skin: Eyes:	 (Irritant) May cause irritation to the respiratory system. Breathing vapors may affect the central nervous system. Move to fresh air. Harmful if swallowed. Do not induce vomiting. Irritating to skin. May cause irritation, tearing or redness
---	---

This product contains ingredients that may contribute to the following potential chronic health effects:  
Reports have associated repeated and prolonged occupational exposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberate / concentrating and inhaling the contents may be harmful.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Ingredient	Wt %	CAS #
Ammonia	0 - 1	7664-41-7
Ethylene glycol monobutyl ether	10 - 15	111-76-2

**SECTION 4: FIRST AID MEASURES**

**Ingestion:** Treat symptomatically. Rinse mouth with water. Give one or two glasses of water. Never give anything by mouth to an unconscious person. Only induce vomiting at the instruction of medical personnel. Get medical attention.

**Inhalation:** Remove exposed person to fresh air if adverse effects are observed get medical attention.

**Skin Contact:** Remove contaminated clothing and shoes. Wash with soap and water, if skin irritation occurs, get medical attention.

**Eye Contact:** Wash out immediately with water for up to 10 minutes. If possible remove contact lenses. Get medical attention.

## SECTION 5: FIRE FIGHTING MEASURES

**General Fire Hazards:** No unusual fire or explosion hazards noted.

**Extinguishing media:** Water spray. Dry chemical or foam. CO<sub>2</sub> may be ineffective on large fires.

**Special protective equipment:** Wear full protective gear including self-containing breathing apparatus operated in a positive pressure mode with full face piece, coat pants, gloves and boots.

**Conditions to Avoid:** Excess heat may cause containers to rupture. Avoid freezing conditions.

**Incompatibility (Materials to Avoid):** Avoid strong alkaline and acids.

**Hazardous Decomposition:** CO, CO<sub>2</sub>, Oxides of Nitrogen

**Hazardous Polymerization:** Will not occur

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**Action to be taken if material is released or spilled:**

Ventilate area. Avoid unnecessary skin contact. Stop and/or contain spill if it can be done safely, avoiding discharge into drains, sewers, or waterways. Collect by absorption, shovel and/or wet mopping. Also wipe, scrape or soak up in/with an inert material and put in a container for disposal. Avoid contact with eyes.

**Waste Disposal Method:**

Dispose of in accordance with Local, State and Federal Regulations.

**Precautions to be taken in Handling and Storing:**

Use with adequate ventilation. Avoid prolonged breathing of vapor. Avoid prolonged or repeated skin contact.

**OTHER PRECAUTIONS:**

Avoid all Sources of Heat.

## SECTION 7: HANDLING AND STORAGE

**Precautions for safe handling:**

Observe good industrial hygiene practices. Provide adequate ventilation. Wear appropriate PPE.

Avoid contact with eyes and prolonged or repeated contact with skin. Avoid breathing mists or vapors. When using do not eat, drink or smoke.

Stir well before use. Keep container closed when not in use.

Minimize contact with air to reduce contamination with mold, fungus, or other organisms which could cause decomposition or spoilage. Wash thoroughly after handling.

## SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

**General Information:** Use personal protective equipment as required.

**Respiratory Protection:**

Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material. A respiratory protection program compliant with all applicable regulation must be followed whenever workplace conditions require the use of a respirator. Use of proper respiratory protection is recommended.

**Ventilation:**

Maintain good ventilation to keep product vapor concentrations below specified limit values.

**Skin Protection:**

Protective Gloves: Suitable gloves should be used to limit effect of skin over-exposure.

**Eye Protection:**

Goggles or face shield are recommended.

**Other Protective Clothing or Equipment:**

To prevent repeated or prolonged skin contact, wear appropriate PPE and boots/shoes.

**Work/Hygienic Practices:**

Eye washes and safety showers in the workplace are recommended, as well as barrier creams, daily showers and a change of clothes.

<b>SECTION 9: PHYSICAL AND CHEMICAL CHARACTERISTICS</b>
---

Boiling Range	212 °F (water) 100 °C
Solubility in water	Soluble
Flash Point	ND
Solids by weight	24.77 ± 0.5
Volatile by weight	63.04 ± 0.5
Specific gravity	1.014
Weight per gallon	8.45
Coatings VOC	3.17 lbs (380.12 g/L)
Material VOC	1.22 lbs (146.25 g/L)
Appearance	Viscous Liquid
pH	8 - 9
Vapor density	Heavier than air
Odor	mild

<b>SECTION 10: STABILITY AND REACTIVITY DATA</b>
--

Stability: material is stable under normal conditions

Conditions to avoid: - Do not freeze

Incompatibility: (Materials to avoid): Strong oxidizing agents, Alkalis and Bases

Hazardous Reactions: Will not occur:

Hazardous Decomposition: Thermal decomposition or combustion may generate smoke, carbon monoxide, carbon dioxide, hydrogen chloride, chlorinated compounds, and other products of other incomplete combustion. Irritating and toxic substances may be emitted upon combustion, burning, or decomposition of dry solids.

<b>SECTION 11: TOXICOLOGICAL INFORMATION</b>
--

Acute Toxicity:

Product: No information available.

Component:

2-butoxyethanol

TWA 20 ppm

PEL 50ppm 240mg/m<sup>3</sup>

Respiratory sensitization: No information available.

Skin sensitization: No information available

Chronic Effects:

Carcinogenicity: No information available

Mutagenicity: No information available

Reproductive: No information available

<b>SECTION 12: ECOLOGICAL INFORMATION</b>
---

Product:

No ecological information on this product regarding acute toxicity to fish, aquatic Invertebrates or aquatic plants.

Component:

Acute toxicity to Fish:

No information available on Aquatic Invertebrates and Aquatic Plants

**SECTION 13 DISPOSAL CONSIDERATIONS****Disposal Instructions:**

Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State and local regulations. Empty containers retain product residue, follow label warnings even after container is emptied.

**SECTION 14: TRANSPORTATION INFORMATION**

DOT Not regulated

IMDG Not regulated

IATA Not regulated

**SECTION 15: REGULATORY INFORMATION****US Federal Regulations -**

USA Yes, all components are listed or exempt

**SARA 311/312 hazardous categorization****Hazardous Categories**

Acute Health Hazard	No
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of pressure Hazard	No
Reactive Hazard	No

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

2-Butoxyethanol 111-76-2

**SECTION 16: OTHER INFORMATION****HMIS Hazard ID:**

Health	2
Flammability	0
Physical Hazards	0

Rating: 0 Minimal  
 1 Slight  
 2 Moderate  
 3 Serious  
 4 Severe \* chronic health effect

**DISCLAIMER:**

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#8

Safety Data Sheet

Product Name: SUN/STEEL #1401 Pastel Base Gloss

3/25/2015

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Sun/Steel  
SYNONYMS: W/R Alkyd Gloss Enamel  
PRODUCT CODE: 1401 White and Pastel Tint Base  
MANUFACTURER: Bert's Paint Inc.  
ADDRESS: 2401 S. 12<sup>th</sup> Street  
Phoenix, AZ 85034

EMERGENCY PHONE: 602-495-6000

FAX PHONE: 602-523-9675

CHEMICAL FAMILY: Paint Waterbase

PRODUCT USE: Industrial Coating

PREPARED BY: Michael Thornham

SECTION 2: HAZARD(S) IDENTIFICATION

Hazard Classification:

Label Elements:

Hazard symbol:  (Irritant)  
Inhalation: May cause irritation to the respiratory system. Breathing vapors may affect the central nervous system. Move to fresh air.  
Ingestion: Harmful if swallowed. Do not induce vomiting.  
Skin: Irritating to skin.  
Eyes: May cause irritation, tearing or redness.

This product contains ingredients that may contribute to the following potential chronic health effects: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	Wt %	CAS #
Ammonia	0 - 1	7664-41-7
Ethylene glycol monobutylether	10 - 15	111-76-2

SECTION 4: FIRST AID MEASURES

Ingestion: Treat symptomatically. Rinse mouth with water. Give one or two glasses of water. Never give anything by mouth to an unconscious person. Only induce vomiting at the instruction of medical personnel. Get medical attention.  
Inhalation: Remove exposed person to fresh air if adverse effects are observed get medical attention.  
Skin Contact: Remove contaminated clothing and shoes. Wash with soap and water, if skin irritation occurs, get medical attention.  
Eye Contact: Wash out immediately with water for up to 10 minutes. If possible remove contact lenses. Get medical attention.

**SECTION 5: FIRE FIGHTING MEASURES**

**General Fire Hazards:** No unusual fire or explosion hazards noted.

**Extinguishing media:** Water spray. Dry chemical or foam. CO<sub>2</sub> may be ineffective on large fires.

**Special protective equipment:** Wear full protective gear including self-containing breathing apparatus operated in a positive pressure mode with full face piece, coat pants, gloves and boots.

**Conditions to Avoid:** Excess heat may cause containers to rupture. Avoid freezing conditions.

**Incompatibility (Materials to Avoid):** Avoid strong alkaline and acids.

**Hazardous Decomposition:** CO, CO<sub>2</sub>, Oxides of Nitrogen

**Hazardous Polymerization:** Will not occur

**SECTION 6: ACCIDENTIAL RELEASE MEASURES**

**Action to be taken if material is released or spilled:**

Ventilate area. Avoid unnecessary skin contact. Stop and/or contain spill if it can be done safely, avoiding discharge into drains, sewers, or waterways. Collect by absorption, shovel and/or wet mopping. Also wipe, scrape or soak up in/with an inert material and put in a container for disposal. Avoid contact with eyes.

**Waste Disposal Method:**

Dispose of in accordance with Local, State and Federal Regulations.

**Precautions to be taken in Handling and Storing:**

Use with adequate ventilation. Avoid prolonged breathing of vapor. Avoid prolonged or repeated skin contact.

**OTHER PRECAUTIONS:**

Avoid all Sources of Heat.

**SECTION 7: HANDLING AND STORAGE**

**Precautions for safe handling:**

Observe good industrial hygiene practices. Provide adequate ventilation. Wear appropriate PPE.

Avoid contact with eyes and prolonged or repeated contact with skin. Avoid breathing mists or vapors. When using, do not eat, drink or smoke.

Stir well before use. Keep container closed when not in use.

Minimize contact with air to reduce contamination with mold, fungus, or other organisms which could cause decomposition or spoilage. Wash thoroughly after handling.

**SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION**

**General Information:** Use personal protective equipment as required.

**Respiratory Protection:**

Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material. A respiratory protection program compliant with all applicable regulation must be followed whenever workplace conditions require the use of a respirator. Use of proper respiratory protection is recommended.

**Ventilation:**

Maintain good ventilation to keep product vapor concentrations below specified limit values.

**Skin Protection:**

Protective Gloves: Suitable gloves should be used to limit effect of skin over-exposure.

**Eye Protection:**

Goggles or face shield are recommended.

**Other Protective Clothing or Equipment:**

To prevent repeated or prolonged skin contact, wear appropriate PPE and boots/shoes.

**Work/Hygienic Practices:**

Eye washes and safety showers in the workplace are recommended, as well as barrier creams, daily showers and a change of clothes.

**SECTION 9: PHYSICAL AND CHEMICAL CHARACTERISTICS**

Boiling Range	212 °F (water) 100 °C
Solubility in water	Soluble
Flash Point	ND
Solids by weight	37.81 ± .5
Volatile by weight	52.35 ± .5
Specific gravity	1.169
Weight per gallon	9.69
Coatings VOC	2.77 lbs (331.9 g/L)
Material VOC	1.14 lbs (136.6 g/L)
Appearance	Viscous Liquid
pH	8 - 9
Vapor density	Heavier than air
Odor	mild

**SECTION 10: STABILITY AND REACTIVITY DATA**

Stability: material is stable under normal conditions

Conditions to avoid: - Do not freeze

Incompatibility: (Materials to avoid): Strong oxidizing agents, Alkalis and Bases

Hazardous Reactions: Will not occur:

Hazardous Decomposition: Thermal decomposition or combustion may generate smoke, carbon monoxide, carbon dioxide, hydrogen chloride, chlorinated compounds, and other products of other incomplete combustion. Irritating and toxic substances may be emitted upon combustion, burning, or decomposition of dry solids.

**SECTION 11: TOXICOLOGICAL INFORMATION**

Acute Toxicity:

Product: No information available.

Component:

2-butoxyethanol

TWA 20 ppm

PEL 50ppm 240mg/m<sup>3</sup>

Respiratory sensitization: No information available.

Skin sensitization: No information available

Chronic Effects:

Carcinogenicity: No information available

Mutagenicity: No information available

Reproductive: No information available

**SECTION 12: ECOLOGICAL INFORMATION**

Product:

No ecological information on this product regarding acute toxicity to fish, aquatic invertebrates or aquatic plants.

Component:

Acute toxicity to Fish:

No information available on Aquatic Invertebrates and Aquatic Plants

**SECTION 13: DISPOSAL CONSIDERATIONS****Disposal Instructions:**

Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State and local regulations. Empty containers retain product residue, follow label warnings even after container is emptied.

**SECTION 14: TRANSPORTATION INFORMATION**

DOT Not regulated

IMDG Not regulated

IATA Not regulated

**SECTION 15: REGULATORY INFORMATION****US Federal Regulations -**

USA Yes, all components are listed or exempt

**SARA 311/312 hazardous categorization****Hazardous Categories**

Acute Health Hazard	No
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of pressure Hazard	No
Reactive Hazard	No

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

2-Butoxyethanol

111-76-2

**SECTION 16: OTHER INFORMATION****HMIS Hazard ID:**

Health	2
Flammability	0
Physical Hazards	0

Rating: 0 Minimal  
 1 Slight  
 2 Moderate  
 3 Serious  
 4 Severe \* chronic health effect

**DISCLAIMER:**

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**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT NAME: Sun/Steel  
SYNONYMS: W/R Alkyd Gloss Enamel  
PRODUCT CODE: 1490 Gloss Black  
MANUFACTURER: Bert's Paint Inc.  
ADDRESS: 2401 S. 12<sup>th</sup> Street  
Phoenix, AZ 85034

EMERGENCY PHONE: 602-495-6000  
FAX PHONE: 602-523-9675

CHEMICAL FAMILY: Paint Waterbase

PRODUCT USE: Industrial Coating  
PREPARED BY: Michael Thornham

**SECTION 2: HAZARD(S) IDENTIFICATION**

Hazard Classification:  
Label Elements:

Hazard symbol:  (Irritant)  
Inhalation: May cause irritation to the respiratory system. Breathing vapors may affect the central nervous system. Move to fresh air.  
Ingestion: Harmful if swallowed. Do not induce vomiting  
Skin: Irritating to skin.  
Eyes: May cause irritation, tearing or redness

This product contains ingredients that may contribute to the following potential chronic health effects:  
Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Ingredient	Wt %	CAS #
Ammonia	0 - 1	7664-41-7
Ethylene glycol monobutylether	10 - 15	111-76-2

**SECTION 4: FIRST AID MEASURES**

**Ingestion:** Treat symptomatically. Rinse mouth with water. Give one or two glasses of water. Never give anything by mouth to an unconscious person. Only induce vomiting at the instruction of medical personnel. Get medical attention

**Inhalation:** Remove exposed person to fresh air if adverse effects are observed get medical attention.

**Skin Contact:** Remove contaminated clothing and shoes. Wash with soap and water, if skin irritation occurs, get medical attention.

**Eye Contact:** Wash out immediately with water for up to 10 minutes. If possible remove contact lenses. Get medical attention.

**SECTION 9: PHYSICAL AND CHEMICAL CHARACTERISTICS**

Boiling Range	212°F (water) 100°C
Solubility in water	Soluble
Flash Point	ND
Solids by weight	24.80 ± .5
Volatile by weight	61.07 ± .5
Specific gravity	1.0168
Weight per gallon	8.47
Coatings VOC	3.05 lbs (366.53 g/L)
Material VOC	1.18 lbs (141.42 g/L)
Appearance	Viscous Liquid
pH	8 - 9
Vapor density	Heavier than air
Odor	mild

**SECTION 10: STABILITY AND REACTIVITY DATA**

**Stability:** material is stable under normal conditions

**Conditions to avoid:** - Do not freeze

**Incompatibility:** (Materials to avoid): Strong oxidizing agents, Alkalis and Bases

**Hazardous Reactions:** Will not occur:

**Hazardous Decomposition:** Thermal decomposition or combustion may generate smoke, carbon monoxide, carbon dioxide, hydrogen chloride, chlorinated compounds, and other products of other incomplete combustion. Irritating and toxic substances may be emitted upon combustion, burning, or decomposition of dry solids.

**SECTION 11: TOXICOLOGICAL INFORMATION****Acute Toxicity:**

Product: No information available.

**Component:**2-butoxyethanol

TWA 20 ppm

PEL 50ppm 240mg/m<sup>3</sup>

Respiratory sensitization: No information available.

Skin sensitization: No information available

**Chronic Effects:**

Carcinogenicity: No information available

Mutagenicity: No information available

Reproductive: No information available

**SECTION 12: ECOLOGICAL INFORMATION****Product:**

No ecological information on this product regarding acute toxicity to fish, aquatic Invertebrates or aquatic plants.

**Component:**Acute toxicity to Fish:

No information available on Aquatic Invertebrates and Aquatic Plants

# 16

Safety Data Sheet

Product Name: SUN/STEEL #1402 Deep Base Gloss

3/25/2015

**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT NAME: Sun/Steel  
SYNONYMS: W/R Alkyd Gloss Enamel  
PRODUCT CODE: 1402 Deep Base Gloss  
MANUFACTURER: Bert's Paint Inc.  
ADDRESS: 2401 S. 12<sup>th</sup> Street  
Phoenix, AZ 85034

EMERGENCY PHONE: 602-495-6000  
FAX PHONE: 602-523-9675

CHEMICAL FAMILY: Paint Waterbase

PRODUCT USE: Industrial Coating  
PREPARED BY: Michael Thornham

**SECTION 2: HAZARD(S) IDENTIFICATION**

Hazard Classification:  
Label Elements:

Hazard symbol:	(Irritant) 
Inhalation:	May cause irritation to the respiratory system. Breathing vapors may affect the central nervous system. Move to fresh air.
Ingestion:	Harmful if swallowed. Do not induce vomiting
Skin:	Irritating to skin.
Eyes:	May cause irritation, tearing or redness

This product contains ingredients that may contribute to the following potential chronic health effects:  
Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Ingredient	Wt %	CAS #
Ammonia	0 - 1	7664-41-7
Ethylene glycol monobutyl ether	10 -15	111-76-2

**SECTION 4: FIRST AID MEASURES**

**Ingestion:** Treat symptomatically. Rinse mouth with water. Give one or two glasses of water. Never give anything by mouth to an unconscious person. Only induce vomiting at the instruction of medical personnel. Get medical attention

**Inhalation:** Remove exposed person to fresh air if adverse effects are observed get medical attention.

**Skin Contact:** Remove contaminated clothing and shoes. Wash with soap and water, if skin irritation occurs, get medical attention.

**Eye Contact:** Wash out immediately with water for up to 10 minutes. If possible remove contact lenses. Get medical attention.

## SECTION 5: FIRE FIGHTING MEASURES

**General Fire Hazards:** No unusual fire or explosion hazards noted.

**Extinguishing media:** Water spray. Dry chemical or foam. CO<sub>2</sub> may be ineffective on large fires.

**Special protective equipment:** Wear full protective gear including self-containing breathing apparatus operated in a positive pressure mode with full face piece, coat pants, gloves and boots.

**Conditions to Avoid:** Excess heat may cause containers to rupture. Avoid freezing conditions.

**Incompatibility (Materials to Avoid):** Avoid strong alkaline and acids.

**Hazardous Decomposition:** CO, CO<sub>2</sub>, Oxides of Nitrogen

**Hazardous Polymerization:** Will not occur

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**Action to be taken if material is released or spilled:**

Ventilate area. Avoid unnecessary skin contact. Stop and/or contain spill if it can be done safely, avoiding discharge into drains, sewers, or waterways. Collect by absorption, shovel and/or wet mopping. Also wipe, scrape or soak up in/with an inert material and put in a container for disposal. Avoid contact with eyes.

**Waste Disposal Method:**

Dispose of in accordance with Local, State and Federal Regulations.

**Precautions to be taken in Handling and Storing:**

Use with adequate ventilation. Avoid prolonged breathing of vapor. Avoid prolonged or repeated skin contact.

**OTHER PRECAUTIONS:**

Avoid all Sources of Heat.

## SECTION 7: HANDLING AND STORAGE

**Precautions for safe handling:**

Observe good industrial hygiene practices. Provide adequate ventilation. Wear appropriate PPE.

Avoid contact with eyes and prolonged or repeated contact with skin. Avoid breathing mists or vapors. When using do not eat, drink or smoke.

Stir well before use. Keep container closed when not in use.

Minimize contact with air to reduce contamination with mold, fungus, or other organisms which could cause decomposition or spoilage. Wash thoroughly after handling.

## SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

**General Information:** Use personal protective equipment as required.

**Respiratory Protection:**

Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material. A respiratory protection program compliant with all applicable regulation must be followed whenever workplace conditions require the use of a respirator. Use of proper respiratory protection is recommended.

**Ventilation:**

Maintain good ventilation to keep product vapor concentrations below specified limit values.

**Skin Protection:**

**Protective Gloves:** Suitable gloves should be used to limit effect of skin over-exposure.

**Eye Protection:**

Goggles or face shield are recommended.

**Other Protective Clothing or Equipment:**

To prevent repeated or prolonged skin contact, wear appropriate PPE and boots/shoes.

**Work/Hygienic Practices:**

Eye washes and safety showers in the workplace are recommended, as well as barrier creams, daily showers and a change of clothes.

**SECTION 9: PHYSICAL AND CHEMICAL CHARACTERISTICS**

Boiling Range	212°F (water) 100°C
Solubility in water	Soluble
Flash Point	ND
Solids by weight	31.17 ± 0.5
Volatile by weight	57.97 ± 0.5
Specific gravity	1.089
Weight per gallon	9.07
Coatings VOC	2.97 lbs (356.8 g/L)
Material VOC	1.17 lbs (139.9 g/L)
Appearance	Viscous Liquid
pH	8 - 9
Vapor density	Heavier than air
Odor	mild

**SECTION 10: STABILITY AND REACTIVITY DATA**

**Stability:** material is stable under normal conditions

**Conditions to avoid:** - Do not freeze

**Incompatibility:** (Materials to avoid): Strong oxidizing agents, Alkalis and Bases

**Hazardous Reactions:** Will not occur:

**Hazardous Decomposition:** Thermal decomposition or combustion may generate smoke, carbon monoxide, carbon dioxide, hydrogen chloride, chlorinated compounds, and other products of other incomplete combustion. Irritating and toxic substances may be emitted upon combustion, burning, or decomposition of dry solids.

**SECTION 11: TOXICOLOGICAL INFORMATION**

**Acute Toxicity:**

Product: No information available.

**Component:**

2-butoxyethanol

TWA 20 ppm

PEL 50ppm 240mg/m<sup>3</sup>

Respiratory sensitization: No information available.

Skin sensitization: No information available

**Chronic Effects:**

Carcinogenicity: No information available

Mutagenicity: No information available

Reproductive: No information available

**SECTION 12: ECOLOGICAL INFORMATION**

**Product:**

No ecological information on this product regarding acute toxicity to fish, aquatic invertebrates or aquatic plants.

**Component:**

Acute toxicity to Fish:

No information available on Aquatic Invertebrates and Aquatic Plants

**SECTION 13 DISPOSAL CONSIDERATIONS****Disposal Instructions:**

Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State and local regulations. Empty containers retain product residue, follow label warnings even after container is emptied.

**SECTION 14: TRANSPORTATION INFORMATION**

DOT Not regulated

IMDG Not regulated

IATA Not regulated

**SECTION 15: REGULATORY INFORMATION****US Federal Regulations -**

USA Yes, all components are listed or exempt

**SARA 311/312 hazardous categorization****Hazardous Categories**

Acute Health Hazard	No
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of pressure Hazard	No
Reactive Hazard	No

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

2-Butoxyethanol 111-76-2

**SECTION 16: OTHER INFORMATION****HMIS Hazard ID:**

Health	2
Flammability	0
Physical Hazards	0

Rating: 0 Minimal  
 1 Slight  
 2 Moderate  
 3 Serious  
 4 Severe \* chronic health effect

**DISCLAIMER:**

*The information contained herein has been received from raw material suppliers and other sources and is believed to be reliable. Bert's Paint Inc. makes no warranty expressed or implied, regarding the accuracy of this data or the results to be obtained from the use thereof. Bert's Paint Inc. assumes no responsibility for injury from the use of this product described herein.*

# Klean-Strip Green Odorless Mineral Spirits

Printed: 01/22/2015

Revision: 01/12/2015

Supersedes Revision: 09/10/2014

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Klean-Strip Green Odorless Mineral Spirits  
**Company Name:** W. M. Barr  
2105 Channel Avenue  
Memphis, TN 38113  
**Phone Number:** ~~11~~ 11  
(901)775-0100  
**Web site address:** www.wmbarr.com  
**Emergency Contact:** 3E 24 Hour Emergency Contact (800)451-8346  
**Information:** W.M. Barr Customer Service (800)398-3892  
**Intended Use:** Paint, stain, and varnish thinning.  
**Synonyms:** QKGO75000, QKGO75001, QKGO75001W

## 2. HAZARDS IDENTIFICATION

### Aspiration Toxicity, Category 1

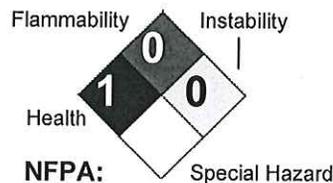


**GHS Signal Word:** **Danger**  
**GHS Hazard Phrases:** H304: May be fatal if swallowed and enters airways.  
**GHS Precaution Phrases:** No phrases apply.  
**GHS Response Phrases:** P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
P331: Do NOT induce vomiting.  
**GHS Storage and Disposal Phrases:** P405: Store locked up.  
P501: Dispose of contents/container according to local, state and federal regulations.

### Hazard Rating System:

HEALTH	*	1
FLAMMABILITY		0
PHYSICAL		0
PPE		X

### HMIS:



### OSHA Regulatory Status:

This material is classified as hazardous under OSHA regulations.

### Potential Health Effects (Acute and Chronic):

The following health hazards are associated with the hazardous ingredients listed in Section 2. Composition/Information on Ingredients.

#### Inhalation Acute Exposure Effects:

Breathing high concentrations may be harmful. Mist or vapor can irritate the throat and lungs. Breathing this material may cause dizziness; headache; watering of eyes; eye irritation; weakness; nausea; muscle twitches, and depression of central nervous system. Severe overexposure may cause convulsions; unconsciousness; and death. Intentional misuse of this product by deliberately concentrating and inhaling can be harmful or fatal.

#### Skin Contact Acute Exposure Effects:

This material can cause mild, transient skin irritation with short-term exposure. Symptoms include redness, itching, and burning of the skin. Repeated or prolonged skin contact can produce moderate irritation.

#### Eye Contact Acute Exposure Effects:

This material can cause mild eye irritation. Symptoms include stinging, watering, redness, and swelling.

#### Ingestion Acute Exposure Effects:

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Harmful or fatal if swallowed. If swallowed, this material may irritate the mucous membranes of the mouth, throat, and esophagus. It can be readily absorbed by the stomach and intestinal tract. Symptoms include a burning sensation of the mouth and esophagus, nausea, vomiting, dizziness, staggering gait, drowsiness, loss of consciousness, and delirium, as well as additional central nervous system effects. There is a danger of aspiration into the lungs during vomiting. Aspiration can result in severe lung damage or death.

#### Chronic Exposure Effects:

Reports have associated repeated and prolonged overexposure to solvents with neurological and other physiological damage. Intentional misuse by deliberately concentrating and inhaling this material may be harmful or fatal. Prolonged or repeated contact may cause dermatitis. May cause jaundice; bone marrow damage; liver damage; anemia; and skin irritation.

**Medical Conditions Generally Aggravated By Exposure:** Diseases of the skin, eyes, liver, kidneys, central nervous system and respiratory system.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Hazardous Components (Chemical Name)	Concentration
64742-47-8	Hydrotreated light distillate (petroleum)	32.0 %

### 4. FIRST AID MEASURES

#### Emergency and First Aid Procedures:

##### Inhalation:

If user experiences breathing difficulty, move to air free of vapors, Administer oxygen or artificial medical assistance can be rendered.

##### Skin Contact:

Wash with soap and large quantities of water and seek medical attention if irritation from contact persists.

##### Eye Contact:

Flush with large quantities of water for at least 15 minutes and seek immediate medical attention.

##### Ingestion:

Do not induce vomiting. If victim is drowsy or unconscious, place on the left side with head down. Never give anything by mouth to a person who is not fully conscious. Seek medical attention immediately. Call your local poison control center, hospital emergency room or physician immediately for further instructions.

#### Signs and Symptoms Of Exposure:

Inhalation, ingestion, and dermal are possible routes of exposure. See Health Hazards for signs and symptoms of exposure.

#### Note to Physician:

A component of this product sensitizes the heart to the effects of sympathomimetic amines. Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias in individuals exposed to this material. Administration of sympathomimetic drugs should be avoided.

## 5. FIRE FIGHTING MEASURES

**Flash Pt:** No data.  
**Explosive Limits:** LEL: N.E. UEL: N.E.  
**Autoignition Pt:** No data.  
**Suitable Extinguishing Media:** Use carbon dioxide, dry powder, foam, or water spray.  
**Unsuitable Extinguishing Media:** None known.  
**Fire Fighting Instructions:** This material does not flash to boiling.

Self-contained respiratory protection should be provided for fire fighters fighting fires in buildings or confined areas. Storage containers exposed to fire should be kept cool with water spray to prevent pressure build-up.

**Flammable Properties and Hazards:** No flash to boiling. This material does not exhibit a flashpoint per the Setaflash Closed Cup test method.

## 6. ACCIDENTAL RELEASE MEASURES

**Steps To Be Taken In Case Material Is Released Or Spilled:** Clean up:  
Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind, out of low areas, and ventilate closed spaces before entering.  
  
Small spills:  
Take up with sand, earth or other noncombustible absorbent material and place in a metal or plastic container where applicable.  
  
Large spills:  
Dike far ahead of spill for later disposal.  
  
Waste Disposal:  
Dispose in accordance with applicable local, state and federal regulations.

## 7. HANDLING AND STORAGE

**Precautions To Be Taken in Handling:** Read carefully all cautions and directions on product label before use. Since empty container retains residue, follow all label warnings even after container is empty. Dispose of empty container according to all regulations. Do not reuse this container.

**Precautions To Be Taken in Storing:** When stored for an extended period of time, the product may separate into two layers with the hazardous ingredient(s) on the top layer. Before use, mix the product by making sure the container is tightly closed and gently shaking the container to agitate the two layers back into solution.  
  
Protect from freezing.  
Keep container tightly closed when not in use.  
Store in a cool, dry place.  
Do not store near flames or at elevated temperatures.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
64742-47-8	Hydrotreated light distillate (petroleum)	PEL: 200 ppm STEL: 500 ppm/(10min) CEIL: 300 ppm	TLV: 200 mg/m3	No data.

- Respiratory Equipment (Specify Type):** For OSHA controlled work place and other regular users. Use only with adequate ventilation under engineered air control systems designed to prevent exceeding appropriate TLV. For occasional use, where engineered air control is not feasible, use properly maintained and properly fitted NIOSH approved respirator for organic solvent vapors. A dust mask does not provide protection against vapors.
- Eye Protection:** Safety glasses, goggles or face shields are recommended to safeguard against potential eye contact, irritation, or injury. Contact lenses should not be worn while working with chemicals.
- Protective Gloves:** For OSHA controlled work place and other regular users, wear impermeable gloves to prevent skin contact. Gloves contaminated with product should be discarded.
- For occasional use, wear impermeable gloves to prevent extended or repeated contact with the skin.
- Other Protective Clothing:** Various application methods can dictate use of additional protective safety equipment, such as impermeable aprons, etc., to minimize exposure.
- Engineering Controls (Ventilation etc.):** Use only with adequate ventilation to prevent build-up of vapors. Open windows and doors if needed to provide fresh air. If strong odor is noticed or you experience slight dizziness, headache, nausea, or eye-watering - Stop - ventilation is inadequate. Leave area immediately.
- Work/Hygienic/Maintenance Practices:** Wash hands thoroughly after use and before eating, drinking, smoking, or using the restroom.
- Do not eat, drink, or smoke in the work area.
- Discard any clothing or other protective equipment that cannot be decontaminated.
- Facilities storing or handling this material should be equipped with an emergency eyewash and safety shower.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

- Physical States:** [ ] Gas [X] Liquid [ ] Solid
- Appearance and Odor:** Opaque, milky white, thin emulsion with a light petroleum distillate odor.
- Melting Point:** 0.00 C
- Boiling Point:** > 100.00 C
- Autoignition Pt:** No data.
- Flash Pt:** No data.
- Explosive Limits:** LEL: N.E. UEL: N.E.
- Specific Gravity (Water = 1):** 0.916 - 0.936

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Vapor Pressure (vs. Air or mm Hg): 0.52 MM HG at 68.0 F  
Vapor Density (vs. Air = 1): > 1  
Evaporation Rate: < 1  
Solubility in Water: 65 %  
Viscosity: 50 CPS at 77.0 F  
pH: Neutral  
Percent Volatile: > 99.0 % by weight.  
VOC / Volume: 30.0000 % WT  
Additional Physical Information: VOC/VOLUME: 276 g/L

6.33 lbs/gal  
30%

## 10. STABILITY AND REACTIVITY

Stability: Unstable [ ] Stable [ X ]  
Conditions To Avoid - Instability: No data available.  
Incompatibility - Materials To Avoid: Incompatible with strong oxidizing agents.  
Hazardous Decomposition Or Byproducts: Decomposition may produce carbon monoxide and carbon dioxide.  
Possibility of Hazardous Reactions: Will occur [ ] Will not occur [ X ]  
Conditions To Avoid - Hazardous Reactions: No data available.

## 11. TOXICOLOGICAL INFORMATION

Toxicological Information: This product has not been tested as a whole.  
Chronic Toxicological Effects: This product has not been tested as a whole.  
Carcinogenicity/Other Information: ACGIH A4 - Not Classifiable as a Human Carcinogen.

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
64742-47-8	Hydrotreated light distillate (petroleum)	n.a.	n.a.	A4	n.a.

## 12. ECOLOGICAL INFORMATION

General Ecological Information: No information available for this product as a whole.

## 13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose in accordance with federal, state, and local regulations.

**14. TRANSPORT INFORMATION**

**LAND TRANSPORT (US DOT):**

**DOT Proper Shipping Name:** Paint Related Material, Not Regulated by D.O.T.

**DOT Hazard Class:**

**UN/NA Number:**

**Additional Transport Information:**

For DOT information, contact W.M. Barr Technical Services.

The shipper / supplier may apply one of the following exceptions: Combustible Liquid, Consumer Commodity, Limited Quantity, Viscous Liquid, Does Not Sustain Combustion, or others, as allowed under 49CFR Hazmat Regulations. Please consult 49CFR Subchapter C to ensure that subsequent shipments comply with these exceptions.

**15. REGULATORY INFORMATION**

**This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:**

<input checked="" type="checkbox"/> Yes [ ] No	Acute (immediate) Health Hazard
<input checked="" type="checkbox"/> Yes [ ] No	Chronic (delayed) Health Hazard
[ ] Yes <input checked="" type="checkbox"/> No	Fire Hazard
[ ] Yes <input checked="" type="checkbox"/> No	Sudden Release of Pressure Hazard
[ ] Yes <input checked="" type="checkbox"/> No	Reactive Hazard

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
64742-47-8	Hydrotreated light distillate (petroleum)	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No

**Regulatory Information:**

This product has been classified according to the hazard criteria of the Controlled Products Regulations.

Concentrations reported in section 2 are weight/weight.

Ingredients disclosed in section 2 are on Canadian DSL.

Hydrotreated Light Distillates CAS # 64742-47-8

WHMIS Classification:

B3 - Flammable and combustible material - Combustible liquid

WHMIS Health Effects Criteria Met by this Chemical: Does not meet criteria

WHMIS Ingredient Disclosure List: Not included. Meets criteria for disclosure at 1% or greater.

**Regulatory Information Statement:**

All components of this material are listed on the TSCA Inventory or are exempt.

**16. OTHER INFORMATION**

**Revision Date:** 01/12/2015  
**Preparer Name:** W.M. Barr and Company, Inc. (901)775-0100  
**Additional Information About This Product:** No data available.

**Company Policy or Disclaimer:**

The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information

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must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.

# Klean Strip Denatured Alcohol

Printed: 04/13/2015

Revision: 04/13/2015

Supersedes Revision: 09/10/2014

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Klean Strip Denatured Alcohol  
**Company Name:** W. M. Barr  
2105 Channel Avenue  
Memphis, TN 38113  
**Phone Number:** # 12  
(901)775-0100  
**Web site address:** www.wmbarr.com  
**Emergency Contact:** 3E 24 Hour Emergency Contact (800)451-8346  
**Information:** W.M. Barr Customer Service (800)398-3892  
**Intended Use:** Cleans glass and is used as a fuel for marine stoves  
**Synonyms:** CSL26, GSL26, QSL26, QSL26W  
**Additional Information** This product is regulated by the United States Consumer Product Safety Commission and is subject to certain labeling requirements under the Federal Hazardous Substances Act. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS). The product label also includes other important information, including directions for use, and should always be read in its entirety prior to using the product.

## 2. HAZARDS IDENTIFICATION

**Flammable Liquids, Category 2**

**Acute Toxicity: Oral, Category 3**

**Acute Toxicity: Skin, Category 3**

**Acute Toxicity: Inhalation, Category 3**

**Specific Target Organ Toxicity (single exposure), Category 1**



**GHS Signal Word:**

**Danger**

**GHS Hazard Phrases:**

H225: Highly flammable liquid and vapor.

H301: Toxic if swallowed.

H311: Toxic in contact with skin.

H331: Toxic if inhaled.

H370: Causes damage to organs.

**GHS Precaution Phrases:**

P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233: Keep container tightly closed.

P240: Ground/bond container and receiving equipment.

P241: Use explosion-proof electrical/ventilating/lighting equipment.

P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.

P260: Do not breathe gas/mist/vapors/spray.

P264: Wash hands thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P271: Use only outdoors or in a well-ventilated area.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P235: Keep cool.

**GHS Response Phrases:**

P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P302+352: IF ON SKIN: Wash with plenty of soap and water.

P303+361+353: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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Printed: 04/13/2015  
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Supersedes Revision: 09/10/2014

P307+311: IF exposed: Call a POISON CENTER or doctor/physician.  
P311: Call a POISON CENTER or doctor/physician.  
P330: Rinse mouth.  
P361: Remove/Take off immediately all contaminated clothing.  
P363: Wash contaminated clothing before reuse.  
P370+378: In case of fire, use dry chemical powder to extinguish.  
P403+233: Store container tightly closed in well-ventilated place.  
P405: Store locked up.  
P501: Dispose of contents/container to local, state and federal regulations.

## GHS Storage and Disposal Phrases:

## Hazard Rating System:

HEALTH	*	2
FLAMMABILITY		3
PHYSICAL		0
PPE		X



## HMIS:

## OSHA Regulatory Status:

This material is classified as hazardous under OSHA regulations.

## Potential Health Effects (Acute and Chronic):

### Inhalation Acute Exposure Effects:

Vapor harmful. May cause dizziness, headache, watering of eyes, irritation of respiratory tract, irritation to the eyes, drowsiness, nausea, other central nervous system effects, spotted or blurry vision, dilation of pupils, and convulsions.

### Skin Contact Acute Exposure Effects:

May cause irritation, drying of skin, redness, and dermatitis. May cause symptoms listed under inhalation. May be absorbed through damaged skin.

### Eye Contact Acute Exposure Effects:

May cause irritation.

### Ingestion Acute Exposure Effects:

Poison. Cannot be made non-poisonous. May be fatal or cause blindness. May produce fluid in the lungs and pulmonary edema. May cause dizziness, headache, nausea, drowsiness, loss of coordination, stupor, reddening of face and or neck, liver, kidney and heart damage, coma, and death. May produce symptoms listed under inhalation.

### Chronic Exposure Effects:

May cause symptoms listed under inhalation, dizziness, fatigue, tremors, permanent central nervous system changes, blindness, pancreatic damage, and death.

### Target Organs:

Liver, kidneys, pancreas, heart, lungs, brain, central nervous system, eyes

## Medical Conditions Generally Aggravated By Exposure:

Diseases of the liver, skin, lung, kidney, central nervous system, pancreas, and heart; asthma; inflammatory or fibrotic pulmonary disease; any preexisting condition sensitive to a decrease in available oxygen, such as chronic lung disease, coronary artery disease, or anemias

# Klean Strip Denatured Alcohol

Printed: 04/13/2015  
Revision: 04/13/2015  
Supersedes Revision: 09/10/2014

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Hazardous Components (Chemical Name)	Concentration	RTECS #
64-17-5	Ethyl alcohol {Ethanol}	30.0 -50.0 %	KQ6300000
67-56-1	Methanol {Methyl alcohol; Carbinol; Wood alcohol}	40.0 -60.0 %	PC1400000

**Additional Chemical Information** Specific percentage of composition is being withheld as a trade secret.

## 4. FIRST AID MEASURES

**Emergency and First Aid Procedures:**

**Skin:**  
Immediately begin washing the skin thoroughly with large amounts of water and mild soap, if available, while removing contaminated clothing. Seek medical attention if irritation persists.

**Eyes:**  
Immediately begin to flush eyes with water, remove any contact lens. Continue to flush the eyes for at least 15 minutes, then seek immediate medical attention.

**Inhalation:**  
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

**Ingestion:**  
If swallowed, do NOT induce vomiting. Seek immediate medical attention. Call a physician, hospital emergency room, or poison control center immediately. Never give anything by mouth to an unconscious person.

**Signs and Symptoms Of Exposure:** See Potential Health Affects

**Note to Physician:** Poison. This product contains methanol. Methanol is metabolized to formaldehyde and formic acid. These metabolites may cause metabolic acidosis, visual disturbances and blindness. Since metabolism is required for these toxic symptoms, their onset may be delayed from 6 to 30 hours following ingestion. Ethanol competes for the same metabolic pathway and has been used as an antidote. Methanol is effectively removed by hemodialysis. Call your local poison control center for further instructions.

## 5. FIRE FIGHTING MEASURES

**Flash Pt:** OSHA Class IB  
45.00 F Method Used: Setaflash Closed Cup (Rapid Setaflash)

**Explosive Limits:** LEL: No data. UEL: No data.

**Autoignition Pt:** No data.

**Suitable Extinguishing Media:** Use carbon dioxide, dry powder, or alcohol resistant foam.

**Unsuitable Extinguishing Media:** Water may be ineffective. Solid streams of water will likely spread the fire.

**Fire Fighting Instructions:** Self-contained respiratory protection should be provided for fire fighters fighting fires in buildings or confined area. Storage containers exposed to fire should be kept cool with water spray to prevent pressure build-up. Stay away from heads of containers that have been exposed to intense heat or flame.

**Flammable Properties and Hazards:** Vapors are heavier than air. Vapor may travel considerable distance to source of ignition and flash back.

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## Flammability Classification:

### 6. ACCIDENTAL RELEASE MEASURES

#### Steps To Be Taken In Case Material Is Released Or Spilled:

Vapors are heavier than air. Vapors may cause flash fire or ignite explosively.

Clean up: Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind, out of low areas, and ventilate closed spaces before entering. Shut off ignition sources; keep flares, smoking or flames out of hazard area. Use non-sparking tools. Use proper bonding and grounding methods for all equipment and processes. Keep out of waterways and bodies of water. Be cautious of vapors collecting in small enclosed spaces, sewers, low lying areas, confined spaces, etc.

Small spills: Take up with sand, earth or other noncombustible absorbent material and place in a plastic container where applicable.

Large spills: Dike far ahead of spill for later disposal.

Waste Disposal: Dispose in accordance with applicable local, state and federal regulations.

### 7. HANDLING AND STORAGE

#### Precautions To Be Taken in Handling:

Read carefully all cautions and directions on product label before use. Since empty container retains residue, follow all label warnings even after container is empty. Dispose of empty container according to all regulations. Do not reuse this container.

Do not use this product near any source of heat or open flame, furnace areas, pilot lights, stoves, etc.

Do not use in small enclosed spaces, such as basements and bathrooms where vapors can accumulate. Vapors can accumulate and explode if ignited.

Do not use this product if the work area is not well ventilated. Use only with adequate ventilation to prevent build up of vapors.

Do not spread this product over large surface areas because fire and health safety risks will increase dramatically.

Use proper bonding and grounding when transferring material. Be aware of static electricity generation when handling material.

#### Precautions To Be Taken in Storing:

Keep container tightly closed when not in use. Store in a cool, dry place. Do not store near any source of heat or open flame, furnace areas, pilot lights, stoves, etc.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

# Klean Strip Denatured Alcohol

Printed: 04/13/2015  
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CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
64-17-5	Ethyl alcohol {Ethanol}	PEL: 1000 ppm	TLV: 1000 ppm	No data.
67-56-1	Methanol {Methyl alcohol; Carbinol; Wood alcohol}	PEL: 200 ppm	TLV: 200 ppm STEL: 250 ppm	No data.

**Respiratory Equipment (Specify Type):** For use in areas with inadequate ventilation or fresh air, wear a properly maintained and properly fitted NIOSH approved respirator for organic solvent vapors.

For OSHA controlled work places and other regular users - Use only with adequate ventilation under engineered air control systems designed to prevent exceeding the appropriate TLV.

A dust mask does not provide protection against vapors.

**Eye Protection:** Chemical splash goggles should be worn to prevent eye contact.

**Protective Gloves:** Wear gloves with as much resistance to the chemical ingredients as possible. Glove materials such as nitrile, natural rubber, and neoprene will provide protection. Glove selection should be based on chemicals being used and conditions of use. Consult your glove supplier for additional information. Gloves contaminated with product should be discarded and not reused.

**Other Protective Clothing:** Various application methods can dictate the use of additional protective safety equipment, such as impermeable aprons, etc., to minimize exposure.

**Engineering Controls (Ventilation etc.):** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Use only with adequate ventilation to prevent buildup of vapors. Do not use in areas where vapors can accumulate and concentrate, such as basements, bathrooms or small enclosed areas. Whenever possible, use outdoors in an open air area. If using indoors open all windows and doors and maintain a cross ventilation of moving fresh air across the work area. If strong odor is noticed or you experience slight dizziness, headache, nausea or eye-watering -- STOP -- ventilation is inadequate. Leave area immediately and move to fresh air.

**Work/Hygienic/Maintenance Practices:** Wash hands thoroughly after use and before eating, drinking, smoking, or using the restroom.

Do not eat, drink, or smoke in the work area.

Discard any clothing or other protective equipment that cannot be decontaminated.

Facilities storing or handling this material should be equipped with an emergency eyewash and safety shower.

# Klean Strip Denatured Alcohol

Printed: 04/13/2015  
Revision: 04/13/2015  
Supersedes Revision: 09/10/2014

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical States:** [ ] Gas [X] Liquid [ ] Solid  
**Appearance and Odor:** Water white, alcohol odor  
**Melting Point:** No data.  
**Boiling Point:** 147.00 F  
**Autoignition Pt:** No data.  
**Flash Pt:** 45.00 F Method Used: Setafash Closed Cup (Rapid Setafash)  
**Explosive Limits:** LEL: No data. UEL: No data.  
**Specific Gravity (Water = 1):** 0.7934 - 0.8108  
**Density:** 6.646 LB/GL  
**Vapor Pressure (vs. Air or mm Hg):** 76 MM HG at 68.0 F  
**Vapor Density (vs. Air = 1):** > 1  
**Evaporation Rate:** > 1  
**Solubility in Water:** No data.  
**Percent Volatile:** 100.0 % by weight.  
**VOC / Volume:** 793.0000 G/L *6.62 lb/gal*

## 10. STABILITY AND REACTIVITY

**Stability:** Unstable [ ] Stable [X]  
**Conditions To Avoid - Instability:** No data available.  
**Incompatibility - Materials To Avoid:** Incompatible with strong oxidizing agents, strong acids, reactive metals, halogens, strong inorganic acids, and aldehydes.  
**Hazardous Decomposition Or Byproducts:** Decomposition may produce carbon monoxide and carbon dioxide.  
**Possibility of Hazardous Reactions:** Will occur [ ] Will not occur [X]  
**Conditions To Avoid - Hazardous Reactions:** No data available.

## 11. TOXICOLOGICAL INFORMATION

**Toxicological Information:** This product has not been tested as a whole. Refer to section 2 for acute and chronic effects.

**Carcinogenicity/Other Information:** IARC 1 - Carcinogenic to Humans  
IARC 2B - Possibly Carcinogenic to Humans  
ACGIH A4 - Not Classifiable as a Human Carcinogen.

IARC has determined that the consumption of alcoholic beverages is casually related to the occurrence of malignant tumors of the oral cavity, pharynx, larynx, esophagus, and liver in humans. The carcinogenic response attributed to drinking alcoholic beverages has not be verified in studies with laboratory animals. Established uses of denatured ethanol and non-beverage use of pure ethanol are not considered to pose any significant cancer hazard.

# Klean Strip Denatured Alcohol

Printed: 04/13/2015  
Revision: 04/13/2015  
Supersedes Revision: 09/10/2014

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
64-17-5	Ethyl alcohol {Ethanol}	n.a.	1	A4	n.a.
67-56-1	Methanol {Methyl alcohol; Carbinol; Wood alcohol}	n.a.	n.a.	n.a.	n.a.

## 12. ECOLOGICAL INFORMATION

**General Ecological Information:** This product has not been tested as a whole.

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Dispose in accordance with applicable local, state, and federal regulations.

## 14. TRANSPORT INFORMATION

**LAND TRANSPORT (US DOT):**

**DOT Proper Shipping Name:** Alcohols, n.o.s. (Ethyl Alcohol, Methanol)  
**DOT Hazard Class:** 3 FLAMMABLE LIQUID  
**UN/NA Number:** UN1987 **Packing Group:** II



**Additional Transport Information:** The shipper / supplier may apply one of the following exceptions: Combustible Liquid, Consumer Commodity, Limited Quantity, Viscous Liquid, Does Not Sustain Combustion, or others, as allowed under 49CFR Hazmat Regulations. Please consult 49CFR Subchapter C to ensure that subsequent shipments comply with these exceptions.

## 15. REGULATORY INFORMATION

**EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists**

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
64-17-5	Ethyl alcohol {Ethanol}	No	No	No
67-56-1	Methanol {Methyl alcohol; Carbinol; Wood alcohol}	No	Yes 5000 LB	Yes

**This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:**

<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Acute (immediate) Health Hazard
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Chronic (delayed) Health Hazard
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Fire Hazard
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Sudden Release of Pressure Hazard
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Reactive Hazard

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
64-17-5	Ethyl alcohol {Ethanol}	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No
67-56-1	Methanol {Methyl alcohol; Carbinol; Wood alcohol}	CAA HAP,ODC: HAP; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: Yes

# Klean Strip Denatured Alcohol

Printed: 04/13/2015  
Revision: 04/13/2015  
Supersedes Revision: 09/10/2014

**Regulatory Information Statement:** All components of this material are listed on the TSCA Inventory or are exempt.

## 16. OTHER INFORMATION

**Revision Date:** 04/13/2015  
**Preparer Name:** W.M. Barr EHS Dept (901)775-0100  
**Additional Information About This Product:** No data available.

**Company Policy or Disclaimer:** The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.



## SAFETY DATA SHEET

### Section 1. IDENTIFICATION

**PRODUCT: SHARPSHOT® Abrasives**

Composition: Copper Slag (Complex silicates and oxides of iron, silica, calcium, and aluminum)  
Product Use: Abrasive air-blasting media

Manufacturer: Minerals Research, Inc.  
 4620 South Coach Drive  
 Tucson, Arizona 85714

Creation Date: 10/15  
Revision Date:

For Additional Information, Contact:  
 Minerals Research, Inc.  
 (520) 748-9362 Phone  
 (520) 748-9364 Fax

### Section 2: HAZARDS IDENTIFICATION

Proper precautions should be taken to avoid any health hazard. A health hazard may occur if limits for air contaminants exceed PEL limits as per 29 CFR 1910.1000. Proper engineering controls and ventilation should be used to prevent air contaminants from exceeding PEL limits. NIOSH-approved respirators should be used during all abrasive blasting operations. (See below for information on potentially hazardous elements)

Usual Route (s) of Entry: Inhalation of dust during handling or use  
Medical Conditions Possibly Aggravated By Exposure: Chronic diseases or disorders of the respiratory system.

Please note that this product may contain the following chemical components in quantities less than 1% by weight. Under extreme conditions (e.g. sandblasting in a confined space without sufficient ventilation), OSHA PELs or ACGIH TLV's could be exceeded. In these situations, employee exposure monitoring should be performed to determine exposure levels.

<u>Component</u>	<u>CAS #</u>	<u>Fed OSHA PEL (mg/m<sup>3</sup>)</u>	<u>CA OSHA PEL (mg/m<sup>3</sup>)</u>	<u>ACGIH TLV (mg/m<sup>3</sup>)</u>
Arsenic (As)	7440-38-2	0.01	0.01	0.01
Cadmium (Cd)	7440-43-9	0.2	0.2	0.01
Chromium (Cr)	7440-47-3	1	0.5	0.5
Cobalt (Co)	7440-48-4	0.1	0.02	0.02
Copper (Cu)	7440-50-8	1	0.1	1
Lead (Pb)	7439-92-11	0.05	0.05	0.05
Mercury (Hg)	7439-97-6	-	-	0.1 (skin)

Molybdenum (Mo)	7439-98-7	15	10 (inh); 3 (resp)	10 (inh); 3 (resp)
Selenium (Se)	7782-49-2	0.2	0.2	0.2
Vanadium (Vn)	1314-62-1	0.5 (resp)	0.05 (resp)	0.05 (resp)
Zinc (Zn)	1314-13-2	5 (resp)	5 (resp)	2 (resp)
Crystalline Silica (SiO <sub>2</sub> )	480-86-07	14.2 (resp = 4.7)	0.3 (resp = 0.1)	0.05 (resp)

### **Section 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Composition: Iron Silicate (Complex silicates and oxides of iron, silica, calcium, and aluminum)

<u>Component</u>	<u>CAS #</u>	<u>Typical % Weight</u>
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	1309-37-1	40-50
Silicates (amorph. SiO <sub>2</sub> )	7440-21-3	35-45
Alpha-Alumina (Al <sub>2</sub> O <sub>3</sub> )	1344-28-1	5-10
Calcium oxide (CaO)	1305-78-8	3-8
Magnesium oxide (MgO)	1309-48-4	1-3
Potassium oxide (K <sub>2</sub> O)	12136-45-7	<1

Please note that this product may contain the following chemical components in quantities less than 1% by weight.

<u>Component</u>	<u>CAS #</u>	<u>Typical % Weight</u>
Arsenic (As)	7440-38-2	<0.007
Barium (Ba)	7440-39-3	<0.005
Cadmium (Cd)	7440-43-9	<0.0008
Chromium (Cr)	7440-47-3	<0.0012
Cobalt (Co)	7440-48-4	<0.004
Copper (Cu)	7440-50-8	<0.18
Lead (Pb)	7439-92-11	<0.009
Molybdenum (Mo)	7439-98-7	<0.0005
Selenium (Se)	7782-49-2	<0.001
Vanadium (Vn)	1314-62-1	<0.003
Zinc (Zn)	1314-13-2	<1
Crystalline Silica (SiO <sub>2</sub> )	480-86-07	<0.5

#### Footnotes:

- (1) See last page for important additional terms and conditions including disclaimer of warranties.
- (2) Concentration may vary somewhat between batches or lots. Where possible, a concentration range is indicated. Occasionally, however, levels may even fall outside of the typical concentration range.

### **Section 4: FIRST AID MEASURES**

- Eye Contact: Not anticipated to pose an acute or significant eye contact hazard. In the event of eye contact, flush eyes with generous amounts of water.
- Skin Contact: Not anticipated to pose an acute or significant skin contact hazard. Wash with soap and water as needed to remove from skin
- Inhalation: Not anticipated to pose an acute or significant inhalation hazard if proper work practices are employed to maintain dust exposure below OSHA PEL's. If overexposure occurs, remove individual to area with fresh air until symptoms cease.
- Ingestion: Not considered to be an ingestion hazard.

## **Section 5: FIRE FIGHTING MEASURES**

<u>Flash Point:</u>	NA	<u>Lower Explosive Limit:</u>	NA
<u>Auto-ignition Temperature:</u>	NA	<u>Upper Explosive Limit:</u>	NA
<u>Fire Hazard:</u>	NA	<u>Explosion Hazard:</u>	NA
<u>Extinguishing Media:</u>	NA	<u>Special Fire Fighting Procedures:</u>	NA
<u>Unusual Fire and Explosion Hazards:</u>	NA		

## **Section 6: ACCIDENTAL RELEASE MEASURES**

Procedures to Follow if Material is Released or Spilled: Using appropriate personnel protective equipment, material should be swept or vacuumed or otherwise collected into appropriate containers.  
Waste Disposal Method(s): Landfill disposal or other methods that are in accordance with local, state and federal regulations. Virgin (unused and uncontaminated) material does not exceed the Toxicity Characteristic Leaching Procedure (TCLP) hazardous waste limits per 40 CFR 261.3. Used or contaminated material should be tested in accordance with 40 CFR 262.11 or any applicable local or state regulations to determine if it is a hazardous waste and disposed of accordingly.

## **Section 7: HANDLING AND STORAGE**

Handling Procedures: Use care to minimize airborne dust generation during handling, and use adequate ventilation and/or dust collection.

Storage: Keep product dry - store product indoors or cover completely to protect from moisture prior to use. Wet material will cause clumping and clogging of abrasive blasting equipment.

## **Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION**

Engineering Controls ( Ventilation, etc.) : Ventilation should be sufficient to maintain dust levels below applicable exposure limit.

Work Practices (Handling and Storage, etc.): Avoid creating airborne dust during handling and use.

Eye Protection: Safety glasses, goggles or face shields are recommended during abrasive blasting or when dust levels are excessive.

Skin Protection: Gloves and long-sleeved clothing are recommended during abrasive blasting or when dust levels are excessive.

Respiratory Protection: When engineering controls are not sufficient to lower dust levels below the applicable exposure limit, use a NIOSH-approved respirator. NIOSH-approved respirators should be used during all abrasive blasting operations in accordance with 29 CFR 1910.134 (OSHA Respiratory Protection Program).

<u>Component</u>	<u>CAS #</u>	<u>Typical % Weight</u>	<u>Fed OSHA PEL (mg/m<sup>3</sup>)</u>	<u>CA OSHA PEL (mg/m<sup>3</sup>)</u>	<u>ACGIH TLV (mg/m<sup>3</sup>)</u>
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	1309-37-1	40-50	10	5	5
Silicates (amorph. SiO <sub>2</sub> )	7440-21-3	35-45	1.8	6 (resp = 3)	10
Alpha-Alumina (Al <sub>2</sub> O <sub>3</sub> )	1344-28-1	5-10	15 (resp =5)	10 (resp = 5)	1 (resp)
Calcium oxide (CaO)	1305-78-8	3-8	5	2	2
Magnesium oxide (MgO)	1309-48-4	1-3	15	10	10
Potassium oxide (K <sub>2</sub> O)	12136-45-7	<1	15	10	10

Please note that this product may contain the following chemical components in quantities less than 1% by weight. Under certain conditions (e.g. sandblasting in a confined space without sufficient ventilation),

OSHA PELs or ACGIH TLV's could be exceeded. In these situations, employee exposure monitoring should be performed to determine exposure levels.

<u>Component</u>	<u>CAS #</u>	<u>Fed OSHA PEL (mg/m<sup>3</sup>)</u>	<u>CA OSHA PEL (mg/m<sup>3</sup>)</u>	<u>ACGIH TLV (mg/m<sup>3</sup>)</u>
Arsenic (As)	7440-38-2	0.01	0.01	0.01
Cadmium (Cd)	7440-43-9	0.2	0.2	0.01
Chromium (Cr)	7440-47-3	1	0.5	0.5
Cobalt (Co)	7440-48-4	0.1	0.02	0.02
Copper (Cu)	7440-50-8	1	0.1	1
Lead (Pb)	7439-92-11	0.05	0.05	0.05
Mercury (Hg)	7439-97-6	-	-	0.1 (skin)
Molybdenum (Mo)	7439-98-7	15	10 (inh); 3 (resp)	10 (inh); 3 (resp)
Selenium (Se)	7782-49-2	0.2	0.2	0.2
Vanadium (Vn)	1314-62-1	0.5 (resp)	0.05 (resp)	0.05 (resp)
Zinc (Zn)	1314-13-2	5 (resp)	5 (resp)	2 (resp)
Crystalline Silica (SiO <sub>2</sub> )	480-86-07	14.2 (resp = 4.7)	0.3 (resp = 0.1)	0.05 (resp)

**Footnotes:**

- (1) See last page for important additional terms and conditions including disclaimer of warranties.
- (2) Concentration may vary somewhat between batches or lots. Where possible, a concentration range is indicated. Occasionally, however, levels may even fall outside of the typical concentration range.

**Section 9: PHYSICAL AND CHEMICAL PROPERTIES**

<u>Physical State:</u>	Granular	<u>Bulk Density (loose):</u>	110 - 120 lbs/ft <sup>3</sup>
<u>Specific Gravity:</u>	3.4 - 3.6	<u>pH:</u>	NA
<u>Appearance/ Odor:</u>	Dull Black, Odorless	<u>Vapor Pressure:</u>	NA
<u>Boiling Point:</u>	NA	<u>Vapor Density:</u>	NA
<u>Melting Point:</u>	Over 2000° F	<u>Evaporation Rate:</u>	NA

**Section 10: REACTIVITY DATA**

<u>Stability:</u>	Stable
<u>Incompatibilities (Materials to Avoid):</u>	Strong mineral acids
<u>Hazardous Thermal Decomposition Products:</u>	None Expected
<u>Polymerization:</u>	Will not occur

**Section 11: TOXICOLOGICAL INFORMATION**

Proper precautions should be taken to avoid any health hazard. A health hazard may occur if limits for air contaminants exceed PEL limits as per 29 CFR 1910.1000. Proper engineering controls and ventilation should be used to prevent air contaminants from exceeding PEL limits. NIOSH-approved respirators should be used during all abrasive blasting operations. (See below for information on potentially hazardous elements)

<u>Usual Route (s) of Entry:</u>	Inhalation of dust during handling or use
<u>Medical Conditions Possibly Aggravated By Exposure:</u>	Chronic diseases or disorders of the respiratory system.

Copper slag is not listed on the NTP, IARC, or OSHA list of carcinogens. However, please note that this product may contain chemical components that under certain conditions (e.g. sandblasting in a confined space without sufficient ventilation), could be released in concentrations that exceed OSHA PELs or ACGIH TLV's. In these situations, employee exposure monitoring should be performed to determine exposure levels.

- Eye Contact: Not anticipated to pose an acute or significant eye contact hazard. In the event of eye contact, flush eyes with generous amounts of water.
- Skin Contact: Not anticipated to pose an acute or significant skin contact hazard. Wash with soap and water as needed to remove from skin
- Inhalation: Not anticipated to pose an acute or significant inhalation hazard if proper work practices are employed to maintain dust exposure below OSHA PEL's. If overexposure occurs, remove individual to area with fresh air until symptoms cease.
- Ingestion: Not considered to be an ingestion hazard.

## **Section 12: ECOLOGICAL INFORMATION**

Procedures to Follow if Material is Released or Spilled: Using appropriate personnel protective equipment, material should be shoveled, swept, vacuumed or otherwise collected into appropriate containers.

Landfill disposal or other methods that are in accordance with local, state and federal regulations. Virgin (unused and uncontaminated) material does not exceed the Toxicity Characteristic Leaching Procedure (TCLP) hazardous waste limits per 40 CFR 261.3. Used or contaminated material should be tested in accordance with 40 CFR 262.11 or any applicable local or state regulations to determine if it is a hazardous waste and disposed of accordingly.

## **Section 13: DISPOSAL CONSIDERATIONS**

Landfill disposal or other methods that are in accordance with local, state and federal regulations. Virgin (unused and uncontaminated) material does not exceed the Toxicity Characteristic Leaching Procedure (TCLP) hazardous waste limits per 40 CFR 261.3. Used or contaminated material should be tested in accordance with 40 CFR 262.11 or any applicable local or state regulations to determine if it is a hazardous waste and disposed of accordingly.

## **Section 14: TRANSPORT INFORMATION**

- DOT** Not regulated as a hazardous material by DOT.
- IATA** Not regulated as dangerous goods.
- IMDG** Not regulated as dangerous goods.
- TDG** Not regulated as dangerous goods.

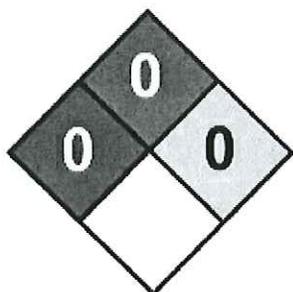
## **Section 15: REGULATORY INFORMATION**

See above

## **Section 16: OTHER INFORMATION**

If material is being used for abrasive air blasting, proper protective clothing, eye protection and respiratory protection should be used in accordance with OSHA regulations. If air blasting is being performed in confined area, proper ventilation should be used in accordance with OSHA regulations.

### **NFPA Ratings:**



### **Abbreviations:**

NA = Not Applicable

## **DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES**

We believe that Minerals Research, Inc.'s (MRI) copper slag products are not hazardous chemicals as defined by the U.S. Federal Occupational Safety and Health Hazard Communication Standard 29 CFR 1910.1200 (c). However, this should not be construed as a warranty that any MRI product is or is not a hazardous chemical under any applicable safety, or environmental statute, rule, or regulation. The use or application of any MRI product, whether or not used in conjunction with any other product, may result in the violation of safety or environmental statutes, rules or regulations as MRI has no control over how the MRI product is used, nor the possible contaminants that may exist on the surface to which it is applied. Therefore, there shall be no express or implied warranty that the spent MRI product conforms with applicable safety and/or environmental statutes, rules or regulation. All sales of this product are subject to MRI's standard terms and conditions of sale. Further, MRI makes no warranties as to any of its products, express or implied, including the Implied Warranty of Merchantability, any implied warranty of fitness for a particular purpose or any implied warranties otherwise arising from course of dealing or trade.

By acceptance of any MRI product, the buyer thereof agrees that MRI's liability for any claim for damages, including, but not limited to, remediation or cleanup costs shall not exceed the value of the goods provided.

This information and product are furnished on the condition that the person receiving them shall make his own determination as to the suitability of the product for his particular purpose and on the condition that he assume the risk of his use thereof, including any environmental restrictions or prohibitions that may apply.

**SDS Creation Date:** 10/15



# Maricopa County

Air Quality Department

1001 N Central Ave, Suite 125, Phoenix, AZ 85004

Phone (602) 506-6010 Fax (602) 372-0587

AQPermits@mail.maricopa.gov

## NOTICE OF REGULATORY REFORM

APR 08 2016

MARICOPA COUNTY  
AIR QUALITY DEPARTMENT

### Notice of Regulatory Reform

In accordance with A.R.S. §11-1604:

- A. A county shall not base a licensing decision in whole or in part on a licensing requirement or condition that is not specifically authorized by statute, rule, ordinance or delegation agreement. A general grant of authority does not constitute a basis for imposing a licensing requirement or condition unless the authority specifically authorizes the requirement or condition.
- B. Unless specifically authorized, a county shall avoid duplication of other laws that do not enhance regulatory clarity and shall avoid dual permitting to the maximum extent practicable.
- C. This section does not prohibit county flexibility to issue licenses or adopt ordinances or codes.
- D. A county shall not request or initiate discussions with a person about waiving that person's rights.
- E. This section may be enforced in a private civil action and relief may be awarded against a county. The court may award reasonable attorney fees, damages and all fees associated with the license application to a party that prevails in an action against a county for a violation of this section.
- F. A county employee may not intentionally or knowingly violate this section. A violation of this section is cause for disciplinary action or dismissal pursuant to the county's adopted personnel policy.
- G. This section does not abrogate the immunity provided by section 12-820.01 or 12-820.02.



NON-TITLE V PERMIT - APPLICATION INSTRUCTIONS

APPLICATION FOR THE AUTHORITY TO OPERATE AND/OR CONSTRUCT  
A NON-TITLE V OPERATION

Applications can be mailed or submitted in person at Maricopa County Air Quality Department, 1001 N. Central Ave., Suite 125, Phoenix, AZ 85004 or One Stop Shop, 501 N. 44th Street, Ste. 200, Phoenix, AZ 85008.

Use this form to apply for a Non-Title V air quality permit or permit renewal for an entire facility. Do not use it to amend prior applications, add additional pieces of equipment to an existing permitted facility, or transfer a current air quality permit from one person to another. Also do not use this application form for applying for an Authority to Operate (ATO) under a general permit (described below) or for applying for a Title V Air Quality Permit. Separate application packages are available for these purposes.

Use this form to apply for a Non-Title V air quality permit or permit renewal for an entire facility. Do not use it to amend prior applications, add additional pieces of equipment to an existing permitted facility, or transfer a current air quality permit from one person to another. Also do not use this application form for applying for an Authority to Operate (ATO) under a general permit (described below) or for applying for a Title V Air Quality Permit. Separate application packages are available for these purposes.

Complete the application by typing or printing legibly. The submitted application and documents become the property of the Maricopa County Air Quality Department (hereafter referred to as the Department) and will not be returned. All submitted documents will be available to the public unless a notice of confidentiality has been submitted by the applicant in accordance with Arizona Revised Statutes (ARS) §49-487 and accepted by the Department in accordance with Maricopa County Air Pollution Control Regulations, Rules 100 and 200. If confidentiality is claimed pursuant to ARS §49-487, a fully completed application with confidential information clearly identified along with a separate copy of the application for public review without the confidential information and a written justification for the confidentiality claimed must be submitted. For a facility without a valid, Department issued, air quality permit, a \$200.00 application fee must accompany the application (make checks payable to MCAQD). For a permit renewal application, an application fee is not required. The applicant will be billed at a later date for any additional applicable fees. If the application is submitted as a result of receiving a notice of violation (NOV), an additional \$100.00 late fee must accompany the application. Before the permit is issued, the Permittee will be billed for all permit processing time required for a billable permit action at a rate of \$150.00 per hour, adjusted annually under Department Rule 280 (Fees), §304. An annual administrative fee will also be charged per Rule 280, §302.2. For questions regarding billing, call (602) 372-1071.

Complete items 1-20 and attach manufacturers' drawings and specifications when required by the permit application. If necessary, attach additional sheets to the application to provide all required information. Submit the application by completing the attached original forms. **All applicants must complete items 1 through 20 and Sections L and Z or the application will be deemed incomplete.**

The Maricopa County Air Pollution Control Regulations are available at the above address or may be viewed and/or downloaded from our web site at <http://www.maricopa.gov/aq/>. You may also contact the Department by telephone at (602) 506-6094 for the costs and information to obtain a full set.

If you need help completing the application package, please see our website or contact 602-506-5102. If you'd like to schedule a pre-application meeting with permitting staff, please contact the Non-Title V Permitting Supervisor at 602-506-7248.

In lieu of a Non-Title V Air Quality Permit, your facility may be eligible for an Authority to Operate (ATO) under a General Permit. Facilities that may be eligible for a General Permit include **dry cleaning facilities, graphic arts printing operations, gasoline dispensing operations, surface coating operations, vehicle and mobile equipment refinishing operations, and external fuel burning equipment that uses gaseous fuels.** To see if your facility qualifies for a General Permit, refer to pages two through four of these instructions. For more information about an ATO under a General Permit, please visit our web site or call (602) 506-6094.



NON-TITLE V PERMIT - APPLICATION INSTRUCTIONS

GENERAL PERMIT ELIGIBILITY

DRY CLEANING:

The General Permit for dry cleaning operations does not cover facilities that are coin operated, or include any transfer machines or separate washer and dryer machines. Dry cleaning facilities that meet all of the following criteria are eligible for a General Permit:

- Use perchloroethylene and/or petroleum solvents, so long as the facilities:
- Include only dry-to-dry machines;
- Consume less than 2,100 gallons of perchloroethylene per twelve-month period; and
- Consume less than 6,800 gallons of petroleum solvents per twelve-month period.
Not operate fuel burning equipment unless:
- The equipment only burns natural gas, propane, or butane; and where
- Each piece is rated less than 10 million BTU per hour; and
- The combined heat input rating for all fuel burning equipment (excluding internal combustion engines) is less than 36 million BTU per hour.
Not operate internal combustion engines on the site except for emergency standby generators with a combined manufacturer's maximum continuous rating of not more than 260 brake horsepower (bhp).

GRAPHIC ARTS OPERATIONS:

Graphic arts facilities that meet all of the following criteria are eligible for a General Permit:

- Have a combination of printing presses with greater than 500 square inches (3,226 cm²) of impression area or any press employing more than two units per printing press. "Units" means the number of printing surfaces.
Emit less than 25 tons per calendar year and less than 4,200 pounds per month of volatile organic compounds (VOCs) from the facility, including but not limited to combined graphic arts, solvent use and boiler operations.
Do not use an emissions control system (ECS) to control solvent emissions.
Do not conduct any other operations requiring an air quality permit other than printing operations, fuel burning, and having an emergency generator.

GASOLINE DISPENSING OPERATIONS:

Gasoline dispensing operations which meet all of the following criteria are eligible for a General Permit:

- Do not conduct any other activities at the site requiring an air quality permit.
Do not have an obstruction at the bottom of the fill pipe that prevents the measurement of the distance from the end of the fill pipe to the bottom of the tank (overflow protection flappers are acceptable).
Each gasoline tank must have its own vapor return line to return the vapors to the tanker truck if Stage I vapor recovery is required.
The monthly and annual throughputs of gasoline are less than those listed in the table below:

Table with 3 columns: Controls, Maximum Monthly Limit, and Rolling Twelve-Month Limit. Rows include Uncontrolled (Non-resale), Stage I Vapor Recovery, and Stage I and Stage II Vapor Recovery.



## NON-TITLE V PERMIT - APPLICATION INSTRUCTIONS

### SURFACE COATING OPERATIONS:

The General Permit for surface coating operations encompasses facilities that apply surface coatings to various types of material. In addition, the facility may also have fuel burning equipment, solvent cleaners and abrasive blasting equipment. In order to qualify for the General Permit, all of the following criteria must be met:

- The facility must coat any of the following: cans, metal furniture, large appliances, fabric, film, plastic parts and products, paper, and vinyl, other metal parts and products; **or** the facility must conduct the following coating operations: air-dried, baked, silicone release and stripable booth.
- Coating must be conducted in a manner such that the requirements of County Rule 315 are met.
- The General Permit does not apply to facilities that are not more specifically regulated by a County Rule, other than Rule 336. For example, the General Permit does not cover the following operations:
  - Aerospace coating operations (Rule 348)
  - Architectural coating, including buildings and erected structures (Rule 335)
  - Marine vessel exterior refinishing
  - Polyester coatings applied to polyester composites
  - Printing and graphic arts coatings (Rule 337)
  - Semiconductor manufacturing (Rule 338)
  - Coating a highway vehicle or mobile equipment (Rule 345)
  - Wood: Coating wood furniture (Rule 342); Coating wood millwork (Rule 346)
- The General Permit does not apply to facilities that utilize a VOC control device.
- The General Permit does not apply to facilities that are subject to any New Source Performance Standards (NSPS) or Maximum Achievable Control Technology (MACT).
- The General Permit does not apply to facilities that conduct powder coating operations.
- The General Permit does not apply to facilities that use a burn off oven.
- The combined use of coatings, solvents, and cleaning materials are less than 375 gallons per month and less than 4,500 gallons per twelve-month period.
- If fuel burning equipment is used, each piece of equipment must be rated less than 10 million BTU per hour, and must use natural gas, propane, or butane for fuel. The combined total of all equipment with a rating greater than 300,000 BTU per hour must be less than 60 million BTU per hour.
- If abrasive blasting equipment is used, the blast enclosure must not use forced air exhaust.
- For solvent cleaning operations (other than gun cleaning machines), the general permit does not apply if you utilize a vapor degreaser, conveyorized degreaser or other type of degreaser other than an unheated, non-conveyorized, small, cold cleaning unit with or without a remote reservoir. These cleaning operations must meet the requirements of County Rule 331 "Solvent Cleaning", Section 305.1 and/or Section 305.2.
- The maximum aggregate horsepower rating of all internal combustion engines on the site is less than 260 horsepower, the engines are used only for emergency purposes (i.e. backup generators), the engines are never used for peak shaving purposes, and the engines are fueled by either gasoline or diesel.



## NON-TITLE V PERMIT - APPLICATION INSTRUCTIONS

### VEHICLE AND MOBILE EQUIPMENT REFINISHING OPERATIONS:

The General Permit for refinishing of vehicles and/or mobile equipment encompasses facilities that paint vehicles and/or mobile equipment. In addition, the facility may also have fuel burning equipment, solvent cleaners, and gasoline tanks used for non-resale dispensing operations. In order to qualify for the General Permit, all of the following limits must be met:

- The use of coatings, solvents, and cleaning materials combined can not exceed 500 gallons per month and 6,000 gallons per any twelve consecutive months;
- For solvent cleaning operations (other than gun cleaning machines), the general permit does not apply if you utilize a vapor degreaser, conveyORIZED degreaser or other type of degreaser other than an unheated, non-conveyORIZED, small, cold cleaning unit with or without a remote reservoir. These cleaning operations must meet the requirements of MCAPC Rule 331 "Solvent Cleaning", Section 305.1 and/or Section 305.2.
- If fuel burning equipment is used, each piece of equipment must be rated less than 10 million Btu per hour, and must use natural gas, propane, or butane for fuel. The combined rating of all units must be less than 55 million Btu per hour.
- For a gasoline dispensing operation, the facility dispenses no resold gasoline, receives less than 120,000 gallons of gasoline in any 12 consecutive calendar months, and each gasoline dispensing tank is equipped with a permanent submerged fill pipe.
- The maximum aggregate horsepower rating of all internal combustion engines on the site is less than 200 horsepower, the engines are used only for emergency purposes (i.e. backup generators), the engines are never used for peak shaving purposes, and the engines are fueled by either gasoline or diesel.

### EXTERNAL FUEL BURNING OPERATIONS:

External fuel burning operations which meet all of the following criteria are eligible for a General Permit:

- External fuel burning is the only activity at the site requiring an air quality permit;
- The fuel burning equipment only uses natural gas, propane or butane as fuel;
- The maximum heat input rating for any single piece of equipment at the site is less than 10 million Btu per hour;
- The maximum combined heat input ratings for all fuel burning equipment (excluding internal combustion engines) at the facility as a whole is less than 55 million Btu per hour; and
- The maximum aggregate horsepower rating of all internal combustion engines on the site is less than 200 horsepower, the engines are used only for emergency purposes (i.e. backup generators), the engines are never used for peak shaving purposes, and the engines are fueled by either gasoline or diesel.



Safety Data Sheet (SDS)  
51551

SDS Revision Date: 04/08/2015

**1. Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

Product Identity 51551

Alternate Names 51551

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Intended use Contact ChemStation representative.

Application Method Contact ChemStation representative.

**1.3. Details of the supplier of the safety data sheet**

Company Name ChemStation of Arizona  
6110 NW Grand Ave  
Glendale AZ 85301

**Emergency**

CHEMTREC (USA) (800) 424-9300

Customer Service: ChemStation of Arizona (623) 435-1945

**2. Hazard identification of the product**

**2.1. Classification of the substance or mixture**

Skin Irrit. 3;H316 Causes mild skin irritation. (Not adopted by US OSHA)

Eye Irrit. 2;H319 Causes serious eye irritation.

**2.2. Label elements**

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.



**Warning**

H316 Causes mild skin irritation.

H319 Causes serious eye irritation.

**[Prevention]:**

P264 Wash thoroughly after handling.

P280 Wear protective gloves / eye protection / face protection.

**[Response]:**

P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P332+313 If skin irritation occurs: Get medical advice / attention.

P337+313 If eye irritation persists: Get medical advice / attention.

**[Storage]:**

No GHS storage statements

**[Disposal]:**

No GHS disposal statements

### 3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Ethylene glycol monobutyl ether CAS Number: 0000111-76-2	1.0 - 10	Acute Tox. 4;H332 Acute Tox. 4;H312 Acute Tox. 4;H302 Eye Irrit. 2;H319 Skin Irrit. 2;H315	[1][2]
Tetrasodium EDTA CAS Number: 0000064-02-8	1.0 - 10	Acute Tox. 4;H302 Eye Dam. 1;H318	[1]

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

\*The full texts of the phrases are shown in Section 16.

### 4. First aid measures

#### 4.1. Description of first aid measures

**General**

In all cases of doubt, or when symptoms persist, seek medical attention.  
Never give anything by mouth to an unconscious person.

**Inhalation**

Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

**Eyes**

Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

**Skin**

Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

**Ingestion**

If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

#### 4.2. Most important symptoms and effects, both acute and delayed

<b>Overview</b>	No specific symptom data available. See section 2 for further details.
<b>Eyes</b>	Causes serious eye irritation.
<b>Skin</b>	Causes mild skin irritation. (Not adopted by US OSHA)

## 5. Fire-fighting measures

### 5.1. Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO<sub>2</sub>, powder, water spray.  
Do not use; water jet.

### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: No hazardous decomposition data available.

### 5.3. Advice for fire-fighters

Cool closed containers exposed to fire by spraying them with water. Do not allow run off water and contaminants from fire fighting to enter drains or water ways.

ERG Guide No.            0

## 6. Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

### 6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

### 6.3. Methods and material for containment and cleaning up

Ventilate the area and avoid breathing vapors. Take the personal protective measures listed in section 8.

Contain and absorb spillage with non-combustible materials e.g. sand, earth, vermiculite. Place in closed containers outside buildings and dispose of according to the Waste Regulations. (See section 13).

Clean, preferably with a detergent. Do not use solvents.

Do not allow spills to enter drains or watercourses.

If drains, sewers, streams or lakes are contaminated, inform the local water company immediately. In the case of contamination of rivers, streams or lakes the Environmental Protection Agency should also be informed.

## 7. Handling and storage

### 7.1. Precautions for safe handling

See section 2 for further details. - [Prevention]:

### 7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Incompatible materials: No data available.

See section 2 for further details. - [Storage]:

### 7.3. Specific end use(s)

No data available.

## 8. Exposure controls and personal protection

### 8.1. Control parameters

#### Exposure

CAS No.	Ingredient	Source	Value
0000064-02-8	Tetrasodium EDTA	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0000111-76-2	Ethylene glycol monobutyl ether	OSHA	TWA 50 ppm (240 mg/m3) [skin]
		ACGIH	TWA: 20 ppm Revised 2003,
		NIOSH	TWA 5 ppm (24 mg/m3) [skin]
		Supplier	No Established Limit

#### Carcinogen Data

CAS No.	Ingredient	Source	Value
0000064-02-8	Tetrasodium EDTA	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0000111-76-2	Ethylene glycol monobutyl ether	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No;

### 8.2. Exposure controls

#### Respiratory

If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.

#### Eyes

Protective safety glasses recommended.

#### Skin

Wear overalls to keep skin contact to a minimum.

#### Engineering Controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

#### Other Work Practices

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention];

## 9. Physical and chemical properties

Appearance	Yellow Thin liquid
Odor	Mild
Odor threshold	Not Measured
pH	10.7 - 11.3
Melting point / freezing point	Not Measured
Initial boiling point and boiling range	>212 deg F
Flash Point	>200 degrees F PMCC (non-flammable)
Evaporation rate (Ether = 1)	0.33
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	<b>Lower Explosive Limit:</b> Not Measured <b>Upper Explosive Limit:</b> Not Measured
Vapor pressure (Pa)	Not Determined
Vapor Density	Not Determined
Specific Gravity	1.005 - 1.015
Solubility in Water	Not Measured
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	Not Measured
Decomposition temperature	Not Measured
Viscosity (cSt)	Not Measured
Foaming	Moderate

#### 9.2. Other information

No other relevant information.

## 10. Stability and reactivity

### 10.1. Reactivity

Hazardous Polymerization will not occur.

### 10.2. Chemical stability

Stable under normal circumstances.

### 10.3. Possibility of hazardous reactions

No data available.

### 10.4. Conditions to avoid

No data available.

### 10.5. Incompatible materials

No data available.

### 10.6. Hazardous decomposition products

No hazardous decomposition data available.

## 11. Toxicological information

### Acute toxicity

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LD50, mg/L/4hr	Inhalation Dust/Mist LD50, mg/L/4hr	Inhalation Gas LD50, ppm
Ethylene glycol monobutyl ether - (111-76-2)	1,414.00, Guinea Pig - Category: 4	1,200.00, Guinea Pig - Category: 4	173.00, Guinea Pig - Category: NA	No data available	No data available
Tetrasodium EDTA - (64-02-8)	1,000.00, Rat - Category: 4	No data available	No data available	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	3	Causes mild skin irritation. (Not adopted by US OSHA)
Serious eye damage/irritation	2	Causes serious eye irritation.
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

## 12. Ecological information

### 12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

#### Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Ethylene glycol monobutyl ether - (111-76-2)	220.00, Fish (Piscis)	1,000.00, Daphnia magna	Not Available
Tetrasodium EDTA - (64-02-8)	486.00, Lepomis macrochirus	610.00, Daphnia magna	100.00 (72 hr), Scenedesmus subspicatus

**12.2. Persistence and degradability**

There is no data available on the preparation itself.

**12.3. Bioaccumulative potential**

Not Measured

**12.4. Mobility in soil**

No data available.

**12.5. Results of PBT and vPvB assessment**

This product contains no PBT/vPvB chemicals.

**12.6. Other adverse effects**

No data available.

**13. Disposal considerations**

**13.1. Waste treatment methods**

Observe all federal, state and local regulations when disposing of this substance.

**14. Transport information**

<b>14.1. UN number</b>	Not Applicable
<b>14.2. UN proper shipping name</b>	Compound, Cleaning,N.O.I., Liquid
<b>14.3. Transport hazard class(es)</b>	Not Applicable
<b>14.4. Packing group</b>	Not Applicable

**15. Regulatory information**

**Regulatory Overview**      The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

**Toxic Substance Control Act ( TSCA)**      All components of this material are either listed or exempt from listing on the TSCA Inventory.

**WHMIS Classification**      D2B

**US EPA Tier II Hazards**

**Fire:** No

**Sudden Release of Pressure:** No

**Reactive:** No

**Immediate (Acute):** Yes

**Delayed (Chronic):** No

**EPCRA 311/312 Chemicals and RQs:**  
(No Product Ingredients Listed)

**EPCRA 302 Extremely Hazardous :**  
(No Product Ingredients Listed)

**EPCRA 313 Toxic Chemicals:**  
Ethylene glycol monobutyl ether

**Proposition 65 - Carcinogens (>0.0%):**  
(No Product Ingredients Listed)

**Proposition 65 - Developmental Toxins (>0.0%):**  
(No Product Ingredients Listed)

**Proposition 65 - Female Repro Toxins (>0.0%):**

(No Product Ingredients Listed)

**Proposition 65 - Male Repro Toxins (>0.0%):**

(No Product Ingredients Listed)

**N.J. RTK Substances (>1%):**

Ethylene glycol monobutyl ether

**Penn RTK Substances (>1%):**

Ethylene glycol monobutyl ether

## 16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

**This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.**

End of Document

**1. GENERAL INFORMATION**

FAR WEST OIL CO., INC. 11221 FLEETWOOD ST. SUN VALLEY, CA. 91352 PHONE: (800) 317-9434 FAX: (818) 768-3224 EMERGENCY PHONE: (818-679-5080	<b>PRODUCT NAME:</b> <b>PRODUCT TYPE:</b> <b>CHEMICAL NAME:</b> <b>D.O.T. CLASS:</b>	<b>SAW PLUS</b> <b>SYNTHETIC MIXTURE</b> <b>WATER SOLUBLE ORGANIC</b> <b>COMPOUND SOAP N.O.S. CLASS 55</b>
--	---	---

<b>N.F.P.A. HAZARD RATING</b>	<b>RATINGS</b>
<b>FIRE-0</b>	<b>4-EXTREME</b>
<b>HEALTH-1</b>	<b>3-HIGH</b>
<b>REACTIVITY-0</b>	<b>2-MODERATE</b>
<b>SPECIAL-0</b>	<b>1-SLIGHT</b>
	<b>0-INSIGNIFICANT</b>

**2. HAZARDOUS INGREDIENTS PER 29 CFR 1910,1000;CFR 1910,1200**

<b>HAZARDOUS COMPONENT</b>	<b>C.A.S. #</b>	<b>PERCENT</b>	<b>THRESHOLD LIMIT VALUE</b>
PROPRIETARY		1-10	NOT ESTABLISHED
PETROLEUM OIL	64741-96-4	1-10	5mg/M3 AS MIST IN AIR

**3. TYPICAL PHYSICAL AND CHEMICAL CHARACTERISTICS**

<b>BOILING POINT(F):</b>	OVER 212 DEGREES	<b>SPECIFIC GRAVITY(H20=1):</b>	1.022
<b>VAPOR PRESSURE(mmHg):</b>	NOT DETERMINED	<b>% VOLATILE BY VOLUME:</b>	NOT DETERMINED
<b>VAPOR DENSITY(AIR=1):</b>	AS FOR WATER	<b>EVAPORATION RATE(H20=1):</b>	AS FOR WATER
<b>SOLUBILITY IN WATER:</b>	COMPLETE	<b>PH @ 10% DILUTION</b>	9.0 - 9.2
<b>VISCOSITY @ 100 F(SSU):</b>	NOT APPLICABLE	<b>PH CONCENTRATE:</b>	9.67 - 9.87
<b>LBS PER 1 GALLON:</b>	8.509		
<b>APPEARANCE AND ODOR:</b>	BLUE GREEN LIQUID WITH SLIGHT AMINE ODOR		

**4. FIRE AND EXPLOSION HAZARD DATA**

<b>FLASH POINT(COC):</b>	NO FLASH
<b>AUTO IGNITION TEMP:</b>	NONE
<b>FLAMMABLE LIMITS:</b>	NOT FLAMMABLE
<b>LEL:</b>	NOT DETERMINED
<b>UEL:</b>	NOT DETERMINED
<b>EXTINGUISHING MEDIA:</b>	CARBON DIOXIDE, FOAM, DRY CHEMICAL
<b>SPECIAL FIRE FIGHTING PROCEDURES:</b>	NONE KNOWN
<b>UNUSUAL FIRE AND EXPLOSION HAZARDS:</b>	NONE KNOWN

**5. REACTIVITY DATA**

<b>STABILITY:</b>	STABLE
<b>HAZARDOUS POLYMERIZATION:</b>	WILL NOT OCCUR
<b>MATERIALS TO AVOID:</b>	DO NOT USE ON MAGNESIUM ALLOYS
<b>CONDITIONS TO AVOID:</b>	DO NOT MIX WITH NITRITES, NITRATES, OR OTHER CHEMICALS CONTAINING NITRITES OR NITRATES
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	NOT DETERMINED

SAW PLUS

#### 6. HEALTH HAZARD DATA

**OSHA THRESHOLD LIMIT VALUE:** NONE ESTABLISHED

**CARCINOGEN-NTP PROGRAM:** NOT A KNOWN CARCINOGEN

**CARCINOGEN-IARC PROGRAM:** NOT A KNOWN CARCINOGEN

**SYMPTOMS OF OVER EXPOSURE:** FREQUENT OR PROLONGED SKIN MAY DEFAT SKIN RESULTING IN DERMATITIS OR REDNESS. EXCESSIVE MIST MAY BE IRRITATING.

**MEDICAL CONDITIONS AGGRAVATED BY OVER EXPOSURE:** CONCENTRATED MISTING MAY AGGRAVATE BREATHING DISORDERS

**PRIMARY ROUTE(S) OF ENTRY:** BREATHING, IF USED IN A SPRAY MIST.

#### EMERGENCY FIRST AID

**EYES:** FLUSH WITH WATER FOR 15 MINUTES. CONTACT PHYSICIAN IF IRRITATION PERSISTS

**INHALATION:** REMOVE TO FRESH AIR UNTIL MISTING DISSIPATES. APPLY ARTIFICIAL RESPIRATION. IF UNCONSCIOUS CONSULT PHYSICIAN

**INGESTION:** CONTACT PHYSICIAN IMMEDIATELY

**SKIN CONTACT:** WASH WITH SOAP AND WATER

#### 7. ENVIRONMENTAL PROTECTION PROCEDURES

**SPILL RESPONSE:** RECOVER FREE PRODUCT AND PLACE IN CONTAINER. ADD SAND OR CLAY TO OTHER SPILL AREAS. KEEP FROM SEWER OR WATERWAYS BY DIKING, ALERT PROPER AUTHORITIES IF NECESSARY.

**WASTE DISPOSAL METHOD:** RECYCLE, OR DISPOSE OF IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

#### 8. SPECIAL PROTECTION INFORMATION

**EYE PROTECTION:** SAFETY GOGGLES, GLASSES OR FACE SHIELD

**SKIN PROTECTION:** IMPERVIOUS GLOVES IF DESIRED

**VENTILATION:** TO MAINTAIN ATMOSPHERE BELOW TLV LIMIT

**RESPIRATORY PROTECTION:** NOT NORMALLY REQUIRED. IF TLV IS EXCEEDED USE APPROVED ACGIH RESPIRATOR WITH APPROVED NIOSH CARTRIDGE OR OTHER APPROVED SELF CONTAINING BREATHING APPARATUS

**OTHER PROTECTION:** IMPERVIOUS FOOTWEAR AND APRON

#### 9. SPECIAL PRECAUTIONS

**HYGIENIC PRACTICES:** WASH HANDS WITH SOAP AND WATER BEFORE EATING, DRINKING, OR SMOKING. MINIMIZE BREATHING OF MISTS. AVOID PROLONGED AND REPEATED SKIN CONTACT. WASH OR DRY CLEAN CONTAMINATED CLOTHING BEFORE WEARING AGAIN.

**STORAGE AND HANDLING PRECAUTIONS:** AVOID STORING NEAR OPEN FLAME OR OTHER SOURCES OF IGNITION. KEEP CONTAINERS TIGHTLY CLOSED WHEN NOT IN USE. STORE IN DRY PLACE TO AVOID RAIN CONTAMINATION.

**OTHER PRECAUTIONS:** EMPTY DRUMS MAY CONTAIN RESIDUE WHICH CAN BE DANGEROUS. DO NOT WELD, CUT, GRIND, DRILL, SOLDER, BRAZE, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, ETC. CONTAINERS MAY EXPLODE AND CAN CAUSE INJURY OR DEATH.

**NOTE:** WE BELIEVE THE STATEMENTS AND TECHNICAL INFORMATION CONTAINED HEREIN ARE RELIABLE, BUT THEY ARE GIVEN WITHOUT WARRANTY OR GUARANTEE OF ANY KIND, EXPRESSED OR IMPLIED. PURCHASER IS RESPONSIBLE FOR SAFE USAGE OF PRODUCT AND CONTAINER.



# Carbon Steel & Low Alloy

## SAFETY DATA SHEET

Effective 1/1/2015

### SECTION: 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

- 1.1 Product Name: Carbon Steel & Low Alloy Wire  
Product Identification: ER70S-2, ER70S-3, ER70S-6, ER70S-7, ER70S-G, E70C-6, E70C-G, R45, R60, R65, AWS A5.2, A5.17, A5.18, A5.23
- Product Specification:
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:
- 1.2.1 Relevant identified uses: For welding consumables and related products.
- 1.2.2 Uses advised: Reference the [ 7. Handling and storage]
- 1.3 Details of the supplier of the safety data sheet:
- Supplier: CoreOne Engineered Welding Products  
 701 S. 7th Street  
 Phoenix, AZ. 85034
- Emergency telephone number: Phone: 602.253.1108
- Email: email: info@coreonewelding.com

### SECTION: 2 HAZARDS IDENTIFICATION

- 2.1 Classification of the mixture:  
 The product is placed on the market in solid form
- 2.1.1 Classification in accordance with GHS-US:
- |           |      |  |  |
|-----------|------|--|--|
| STOT SE 3 | H336 |  |  |
| STOT SE 3 | H335 |  |  |
| STOT RE 1 | H372 |  |  |
- 2.2 Label elements:
- GHS-US labeling:
- Hazard Pictograms (GHS-US): GHS07 GHS09
- Signal word (GHS-US): Danger
- Hazard statements (GH5-US):
- H335 May cause respiratory irritation
- H336 May cause drowsiness or dizziness
- H372 Causes damage to organs through prolonged or repeated exposure
- Precautionary statements:
- P260 Do not breathe dust/fume/gas/mist/vapours/spray
- P261 Avoid breathing dust/fume/gas/mist/vapours/spray
- P264 Wash thoroughly after handling
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing
- P312 Call a POISON CENTER or doctor/physician if you feel unwell.
- P314 Get medical advice and attention if you feel unwell
- P403+P233 Store in a well ventilated place. Keep container tightly closed.
- P405 Store locked up
- P501 Dispose of contents and container in accordance with local regional/national international regulations.
- 2.3 Other hazards: No additional information available
- 2.4 Unknown acute toxicity (GHS-US): No data available.

### SECTION: 3 COMPOSITION/INFORMATION ON INGREDIENTS

- 3.1 Substances: No data available  
Full text of H-phrases: see section 16
- 3.2 Mixtures: The mixture contains dangerous substances:

**SECTION: 4 FIRST AID MEASURES**

Substance name	Product Identifier (CAS No)	% Percent	GHS-US classification
Manganese Mn	7439-96-5	0.5 – 2	Not classified
Silicon Si	7440-21-3	0.1 – 1.15	Not classified
Copper Cu	7440-50-8	0.3 – 0.5	Not classified
Carbon C	7440-44-0	0.5 – 0.18	Not classified
Titanium Ti	7440-32-6	0 – 0.17	Not classified
Aluminum Al	7429-90-5	0 – 0.15	Not classified

4.1 Description of first aid measures:

First-aid measures after inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen and get medical attention.

First-aid measures after skin contact: Flush with water for at least 15 minutes. Seek medical attention if irritation develops or persists.

First-aid measures after eye contact: Immediately flush eyes with water and continue washing for at least 15 minutes. Obtain medical attention if discomfort persists.

First-aid measures after ingestion: Do NOT induce vomiting. Get immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed:

Symptoms/injuries after inhalation: Short-term (acute) overexposure to the gases, fumes, and dusts may include irritation of the eyes, lungs, nose, and throat. Some toxic gases associated with welding may cause pulmonary edema, asphyxiation, and death. Acute overexposure may include signs and symptoms such as watery eyes, nose and throat irritation, headache, dizziness, difficulty in breathing, frequent coughing, or chest pain. The presence of chromium/chromate in fume can cause irritation of nasal membranes and skin. The presence of nickel compounds in fume can cause metallic taste, nausea, tightness of chest, fever, and allergic reaction. Excessive inhalation or ingestion of manganese can produce manganese poisoning. Overexposure to manganese compounds may affect the central nervous system, symptoms of which are languor, sleepiness, muscular weakness, emotional disturbances, and spastic gait resembling Parkinsonism. These symptoms can become progressive and permanent if not treated. Excessive inhalation of fumes may cause "Metal Fume Fever" with Flu-like symptoms such as chills, fever, body aches, vomiting, sweating, etc.

Symptoms/injuries after skin contact:

Dusts may cause irritation.

Symptoms/injuries after eye contact:

Causes eye irritation.

Symptoms/injuries after ingestion:

Not an anticipated route of exposure during normal product handling. May be harmful if ingested.

4.3 Indication of any immediate medical attention and special treatment needed: No data available.

**SECTION: 5 FIREFIGHTING MEASURES**

5.1 Extinguishing media:

Suitable extinguishing media: Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media: No data available.

5.2 Special hazards arising from the substance or mixture: Fire may produce irritating or poisonous gases.

Fire hazard:

Not flammable

Explosion hazard:

None known

5.3 Advice for firefighters: In the event of fire, wear self-contained breathing apparatus and full protective gear.

**SECTION: 6 ACCIDENTAL RELEASE MEASURES**

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel: Wear appropriate personal protective equipment as specified in Section 8. Ensure adequate ventilation.

For emergency responders: No data available.

6.2 Environmental precautions: Avoid release into the environment. Avoid dispersal of spilled material and contact with soil, ground and surface water drains and sewers.

6.3 Methods and material for containment and cleaning up: Take up mechanically. Collect the material in labeled containers and dispose of according to local and regional authority requirements.

6.4 Reference to other sections: See Section 7 for information of safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.



# Carbon Steel & Low Alloy

## SAFETY DATA SHEET

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**SECTION: 7 HANDLING AND STORAGE**

- 7.1 Precautions and safe handling: Welding may produce dust, fumes and gases hazardous to health. Avoid breathing dust, fumes and gases. Use adequate ventilation. Keep away from sources of ignition. Avoid contact with skin, eyes and clothing. Do not eat, drink and smoke in work areas.
- 7.2 Conditions for safe storage, including and incompatibilities: Store in cool, dry and well-ventilated place. Keep away from incompatible materials. Keep away from heat and open flame.
- 7.3 Specific end use(s): For welding consumables and related products.

**SECTION: 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

- 8.1 Control parameters: Exposure limits were not established for this product

<b>Copper</b> (CAS No) 7440-50-8		
USA ACGIH	ACGIH (TWA) (mg/m <sup>3</sup> )	0.2 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
<b>Manganese</b> (CAS No) 7439-96-5		
USA ACGIH	ACGIH (TWA) (mg/m <sup>3</sup> )	0.1 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (Ceiling) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
<b>Silicon</b> (CAS No) 744-21-3		
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
<b>Aluminum</b> (CAS No) 7429-90-5		
USA ACGIH	ACGIH (TWA) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>

8.2 Exposure controls:

Appropriate engineering controls: local exhaust and general ventilation must be adequate to meet exposure standards.

Hand protection: Wear welding gloves.

Eye protection: Wear helmet or face shield with filter lens of appropriate shade number. See ANSI/ASC Z49.1 Section 4.2. Provide protective screens and flash goggles, if necessary, to shield others.

Skin and body protection: Wear head and body protection, which help to prevent injury from radiation, sparks, flame and electrical shock. See ANSI Z49.1. At a minimum this includes welder's gloves and a protective face shield, and may include arm protectors, aprons, hats, shoulder protection, as well as dark substantial clothing. Train the employee not to touch live electrical parts and to insulate him/herself from work and ground. Welders should not wear short sleeve shirts or short pants.

Respiratory protection: If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn.

**SECTION: 9 PHYSICAL AND CHEMICAL PROPERTIES**

9.1 Information on basic physical and chemical properties:

Physical state:	- Solid
Appearances:	- Rods or Wire
Color:	- Metallic
Odor:	- No data available
Odor threshold:	- No data available
pH:	- No data available
Relative evaporation rate (butyl acetate = 1):	- No data available
Melting point:	- No data available
Freezing point:	- No data available
Initial boiling point and boiling range:	- No data available
Flash point:	- No data available
Self ignition temperature:	- No data available
Decomposition temperature:	- No data available
Flammability (solid, gas):	- No data available
Vapour pressure:	" No data available
Relative vapour density at 20· C:	- No data available
Relative density:	- No data available
Solubility(ies)	- No data available
Log Pow:	- No data available
Log Kow:	- No data available
Viscosity, kinematic:	- No data available
Viscosity, dynamic:	- No data available
Explosive properties:	- No data available
Oxidizing properties:	- No data available
Explosive limits:	- No data available

9.2 Other information: No additional information available.

**SECTION: 10 STABILITY AND REACTIVITY**

10.1 Reactivity: No additional information available.

10.2 Chemical stability: The product is stable under normal conditions. When using it may produce dangerous fumes and gases.

10.3 Possibility of hazardous reactions: Will not occur.

10.4 Conditions to avoid: None

10.5 Incompatible materials: None

10.6 Hazardous decomposition products: Welding fumes and gases cannot be classified simply. The composition and quantity of both are dependent upon the metal being welded, the process, procedure and welding consumables used. Other conditions which also influence the composition and quantity of the fumes and gases to which workers may be exposed include: coating on the metal being welded (i.e. paint, painting, galvanizing), the number of welders, the volume of the work area, the quality and the amount of ventilation, the position of the welders head with respect to the fume plume, as well as the presence of contaminants in the atmosphere (such as chlorinated hydrocarbon vapors from the cleaning and degreasing activities).

When an electrode is consumed, the fume and gas decomposition products generated are different in percent and form from the ingredients listed in Section 3. Fume and gas decomposition, and not the ingredients in the electrode, are important. The concentration of a given fume or gas component may decrease or increase by many times the original concentration. Also, new compounds not in the electrodes may form.

Decomposition products of normal operation include those originating from the volatilization, reaction or oxidation of the materials shown in Section 3, plus those from the base metal coating, etc., as noted above. Reasonable expected fume constituents of this product would include: Complex oxides of iron, manganese, silicon, chromium, nickel, columbium, molybdenum, copper, carbon dioxide, carbon monoxide, ozone and nitrogen Oxides. Some products will also contain antimony, barium, molybdenum, aluminum, columbium, magnesium, strontium, tungsten, and or zirconium. Fume limit for chromium, nickel and or manganese may be reached before limit of 5 mg/m3 of general welding fumes is reached. Gaseous reaction products may include carbon monoxide and carbon dioxide. Ozone and nitrogen oxides may be formed by the radiation from the arc. Determine the composition and quantity of fumes and gases to which workers are exposed by taking an air sample from inside the welder's helmet if worn or in the worker's breathing zone. Improve ventilation if exposures are not below limits. See ANSI/AWS Fl.1, Fl.3 and Fl.5, available from the American Welding Society, 550 N.W. Lejeune Road, Miami, FL 33126

**SECTION: 11 TOXICOLOGICAL INFORMATION**

11.1 Information on toxicological effects:

Acute toxicity: Harmful if swallowed

Substance name	CAS number	LD50 oral rat (mg/kg)	ATE (oral) (mg/kg)	Comments
Manganese	7439-96-5		9000000.000 mg/kg	
Silicon	7440-21-3		3160.000 mg/kg	
Carbon	7440-21-3	>10000 mg/kg		

Skin corrosion/irritation: Not classified  
 Serious eye damage/irritation: Not classified  
 Respiratory or skin sensitization: Not classified  
 Germ cell mutagenicity: Not classified  
 Carcinogenicity: Not classified  
 Reproductive toxicity: Not classified  
 Specific target organ toxicity (single exposure): May cause drowsiness. May cause respiratory irritation.  
 Specific target organ toxicity (repeated exposure): Causes damage to organs through prolonged or repeated exposure  
 Aspiration hazard: Not classified

**SECTION: 12 ECOLOGICAL INFORMATION**

12.1 Toxicity:

Ecology - general: No additional information available.

Copper	(CAS No) 7440-50-8
LC50 fishes 1	0.0068 - 0.0156 mg/l (Exposure time: 96 h - species: Pimephales promelas)
EC50 Daphnia 1	0.03 mg/l (Exposure time: 48 h - Species: Daphnia magna [static])
EC50 other aquatic organisms 1	0.0426 - 0.0535 mg/l (Exposure time: 72 h - Species: Pseudokirchneriella subcapitata [static])
LC50 fish 2	< 0.3 mg/l (Exposure time: 96 h - species: Pimephales promelas ([static])
EC50 other aquatic organisms 2	0.031 - 0.054 mg/l (Exposure time: 96 h - Species: Pseudokirchneriella subcapitata [static])

- 12.2 Persistence and degradability: No additional information available.  
 12.3 Bioaccumulative potential: No additional information available.  
 12.4 Mobility in soil: No additional information available.  
 12.5 Other adverse effects: No additional information available.

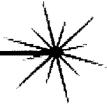
**SECTION: 13 DISPOSAL CONSIDERATIONS**

- 13.1 Waste treatment methods: Dispose of in accordance with local and national regulations.  
 Waste disposal recommendations: Dispose of contents/container in accordance with local/regional/national/international regulations.

**SECTION: 14 TRANSPORT INFORMATION**

In accordance with DOT / ADR / RID / ADNR / IMDG / ICAO / IATA

- 14.1 UN Number: Not a dangerous good in sense of transport regulations  
 14.2 UN proper shipping name: Not applicable



**SECTION: 15 REGULATORY INFORMATION**

1.5.1 US Federal Regulations:

<b>Copper</b>	<b>(CAS No) 7440-50-8</b>
Listed on the United States TSCA (Toxic Substances Control Act) Inventory	
Listed on SARA Section 313 (Specific toxic chemical listings)	
SARA Section 313 - Emission Reporting 1.0%	
<b>Manganese</b>	<b>(CAS No) 7439-96-5</b>
Listed on the United States TSCA (Toxic Substances Control Act) Inventory	
Listed on SARA Section 313 (Specific toxic chemical listings)	
SARA Section 313 - Emission Reporting 1.0%	
<b>Silicon</b>	<b>(CAS No) 7440-21-3</b>
Listed on the United States TSCA (Toxic Substances Control Act) Inventory	
<b>Titanium</b>	<b>(CAS No) 7440-32-6</b>
Listed on the United States TSCA (Toxic Substances Control Act) Inventory	
<b>Carbon</b>	<b>(CAS No) 7440-44-0</b>
Listed on the United States TSCA (Toxic Substances Control Act) Inventory	
<b>Aluminum</b>	<b>(CAS No) 7429-90-5</b>
Listed on the United States TSCA (Toxic Substances Control Act) Inventory	
Listed on SARA Section 313 (Specific toxic chemical listings)	
SARA Section 313 - Emission Reporting 1.0% (dust or fume only)	

15.2 US State Regulations:

<b>Copper</b>	(CAS No) 7440-50-8
U.S. - Massachusetts - Right To Know List	
U.S. - Minnesota - Hazardous Substance list	
U.S. - New Jersey - Right to Know Hazardous Substance List	
U.S. - Pennsylvania - RTK (Right to Know) List	
<b>Manganese</b>	(CAS No) 7439-96-5
U.S. - Massachusetts - Right To Know List	
U.S. - Minnesota - Hazardous Substance List	
U.S. - New Jersey - Right to Know Hazardous Substance List	
U.S. - Pennsylvania - RTK (Right to Know) List	
<b>Silicon</b>	(CAS No) 7440-21-3
U.S. - Massachusetts - Right To Know List	
U.S. - Minnesota - Hazardous Substance List	
U.S. - New Jersey - Right to Know Hazardous Substance List	
U.S. - Pennsylvania - RTK (Right to Know) List	
<b>Titanium</b>	(CAS No) 7440-32-6
U.S. - New Jersey - Right to Know Hazardous Substance list	
<b>Aluminum</b>	(CAS No) 7429-90-5
U.S. - Massachusetts - Right To Know List	
U.S. - Minnesota - Hazardous Substance List	
U.S. - New Jersey - Right to Know Hazardous Substance List	
U.S. - Pennsylvania - RTK (Right to Know) List	

**SECTION: 16 OTHER INFORMATION**

Full text of H-phrases:

STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Narcosis
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H372	Causes damage to organs through prolonged or repeated exposure

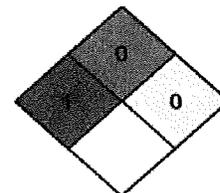


# Carbon Steel & Low Alloy

## SAFETY DATA SHEET

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NFPA health hazard: 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.  
NFPA fire hazard: 0 - Materials that will not burn.  
NFPA reactivity: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



### HMIS III Rating

Health: 2 - Moderate Hazard - Temporary or minor injury may occur  
Flammability: 0 - Minimal Hazard  
Physical: 0 - Minimal Hazard

We believe that the information contained herein is believed to be true and accurate as of the date of this SOS. All statements or suggestions are made without any warranty, expressed or implied, regarding the accuracy of the information, the hazard connected with the use of this material or the results to be obtained for use thereof. As the condition or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this material. It is the user's obligation to determine the conditions of safe use of these products.

All chemical products can in fact present unknown risks to health, safety and / or the environment, even in relation to the different operating conditions, and they must therefore be used with care. For this reason we cannot guarantee that the risk described in this form are the only foreseeable risks. The user must therefore satisfy himself as to the particular conditions under which it is intended to be use in. Moreover, it must be noted that the user is obliged to comply with all the legislative, administrative and regulatory provisions regarding the product and its use in terms of occupational hygiene and safety, and environmental protection, apart from the information given in the form, given purely as guidance.

Technical Department



# Material Safety Data Sheet

Material Name: Carbon and Alloy Steels

## \*\*\* Section 1 - Chemical Product and Company Identification \*\*\*

### Manufacturer Information

Gerdau Long Steel North America  
4221 West Boy Scout Blvd.  
Suite 600  
Tampa, FL 33607

Phone: (800) 876-3626

Emergency # 800-424-9300 CHEMTREC

## \*\*\* Section 2 - Hazards Identification \*\*\*

### Emergency Overview

Under normal handling and use, exposure to massive forms of steel presents no health hazards. Grinding, thermal cutting, and melting of steel may produce fumes containing elemental constituents, and breathing these fumes may present potentially significant health hazards.

### Potential Health Effects: Eyes

Dust or powder may cause irritation and/or inflammation to the eye tissue. Rubbing may cause abrasion of cornea.

### Potential Health Effects: Skin

Product may contain levels of components that may cause allergic skin reactions. Dust or powder may irritate the skin. This product may produce skin abrasions, lesions, or cuts.

### Potential Health Effects: Ingestion

Ingestion of this product is unlikely; however if ingested may cause gastrointestinal disturbances, abdominal pain, fever, vomiting, and diarrhea. Ingestion of large amounts of product may produce more serious toxicities.

### Potential Health Effects: Inhalation

Product may contain levels of components that may cause allergic respiratory sensitization and cancer. Dusts, vapors, and fumes generated during processing may irritate the respiratory system. Severe acute overexposure or chronic overexposure to dusts or processing fumes may produce more serious toxicities.

HMIS Ratings: Health: 1 Fire: 0 HMIS Reactivity 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe \* = Chronic hazard

## \*\*\* Section 3 - Composition / Information on Ingredients \*\*\*

CAS #	Component	Percent
1309-37-1	Iron oxide	>94
7440-02-0	Nickel	<2
7439-96-5	Manganese	<1.65
7440-47-3	Chromium	<1.2
7440-21-3	Silicon	<1
7439-98-7	Molybdenum	<1
1333-86-4	Carbon black	<1

## \*\*\* Section 4 - First Aid Measures \*\*\*

### First Aid: Eyes

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In case of mechanical abrasions and cuts, seek medical attention.

### First Aid: Skin

For skin contact, wash immediately with soap and water. Cuts or abrasions should be treated promptly with thorough cleansing of the affected area.

### First Aid: Ingestion

Seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

### First Aid: Inhalation

Remove the affected person to fresh air. If the affected person is not breathing, apply artificial respiration. Seek medical attention immediately.

# Material Safety Data Sheet

Material Name: Carbon and Alloy Steels

## \*\*\* Section 5 - Fire Fighting Measures \*\*\*

### General Fire Hazards

See Section 9 for Flammability Properties.

Fire and explosion hazards are moderate when material is in the form of dust and is exposed to heat or flame, or attacked by chemical reaction. Fires have been reported in piles of fine scrap, probably due to contamination from oil or other materials which support combustion.

### Hazardous Combustion Products

Fire or thermal processing may release products of hydrocarbon decomposition and metal fumes.

### Extinguishing Media

Use special mixtures of dry chemicals or sand.

### Fire Fighting Equipment/Instructions

Fire fighters should wear full-face, self contained breathing apparatus and impervious protective clothing. Fire fighters should avoid inhaling any combustion products.

NFPA Ratings: Health: 1 Fire: 0 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

## \*\*\* Section 6 - Accidental Release Measures \*\*\*

### Containment Procedures

No special precautions are necessary for spills of bulk solid material.

### Clean-Up Procedures

If large quantities of dust are spilled, remove by vacuuming or wet sweeping to prevent heavy concentrations of airborne dust. Cleanup personnel should wear respirators and protective clothing.

### Evacuation Procedures

None necessary.

### Special Procedures

This material may be regulated as a PCB Bulk Product Waste.

## \*\*\* Section 7 - Handling and Storage \*\*\*

### Handling Procedures

Avoid inhaling dusts or vapors produced during thermal processing. Avoid eye and excessive skin contact. Use only with adequate ventilation. As with all chemicals, good industrial hygiene practices should be followed when handling this material. Special care must be taken to avoid buildup of dusts.

### Storage Procedures

Keep this material in a well-ventilated area. Keep this material slightly damp to avoid fire hazards.

## \*\*\* Section 8 - Exposure Controls / Personal Protection \*\*\*

### A: Component Exposure Limits

#### Iron oxide (1309-37-1)

ACGIH: 5 mg/m3 TWA (respirable fraction)  
OSHA: 10 mg/m3 TWA (fume)  
NIOSH: 5 mg/m3 TWA (dust and fume, as Fe)

#### Nickel (7440-02-0)

ACGIH: 1.5 mg/m3 TWA (inhalable fraction)  
OSHA: 1 mg/m3 TWA  
NIOSH: 0.015 mg/m3 TWA

#### Manganese (7439-96-5) ACGIH:

0.2 mg/m3 TWA  
OSHA: 1 mg/m3 TWA (fume)  
3 mg/m3 STEL (fume)  
5 mg/m3 Ceiling  
NIOSH: 1 mg/m3 TWA (fume)  
3 mg/m3 STEL

# Material Safety Data Sheet

Material Name: Carbon and Alloy Steels

## Chromium (7440-47-3)

ACGIH: 0.5 mg/m<sup>3</sup> TWA

OSHA: 1 mg/m<sup>3</sup> TWA

NIOSH: 0.5 mg/m<sup>3</sup> TWA

## Carbon black (1333-86-4)

ACGIH: 3.5 mg/m<sup>3</sup> TWA

OSHA: 3.5 mg/m<sup>3</sup> TWA

NIOSH: 3.5 mg/m<sup>3</sup> TWA; 0.1 mg/m<sup>3</sup> TWA (as PAH, carbon black in presence of polycyclic aromatic hydrocarbons)

## Silicon (7440-21-3)

OSHA: 10 mg/m<sup>3</sup> TWA (total dust); 5 mg/m<sup>3</sup> TWA (respirable fraction)

NIOSH: 10 mg/m<sup>3</sup> TWA (total dust); 5 mg/m<sup>3</sup> TWA (respirable dust)

## Molybdenum (7439-98-7)

ACGIH: 10 mg/m<sup>3</sup> TWA (inhalable fraction); 3 mg/m<sup>3</sup> TWA (respirable fraction)

OSHA: 10 mg/m<sup>3</sup> TWA

## Engineering Controls

Use general and local exhaust ventilation to control airborne concentrations of dust or fumes.

## PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Approved safety glasses or goggles should be worn when working with dusty material.

Personal Protective Equipment: Skin

Gloves and barrier creams may be necessary to prevent skin sensitization and dermatitis.

Personal Protective Equipment: Respiratory

When dusts or thermal processing fumes are generated and ventilation is not sufficient to effectively remove them, appropriate NIOSH/MSHA approved respiratory protection must be provided.

Personal Protective Equipment: General

Use good industrial hygiene practices in handling this material.

## \*\*\* Section 9 - Physical & Chemical Properties \*\*\*

Appearance:	Metallic silver-grey	Odor:	None
Physical State:	Solid	pH:	NA
Vapor Pressure:	1 mm Hg @ 1787°C	Vapor Density:	NA
Boiling Point:	NA	Melting Point:	1371-1482°C
Solubility (H <sub>2</sub> O):	Insoluble	Specific Gravity:	7.84
Evaporation Rate:	NA	VOC:	NA
Octanol/H <sub>2</sub> O Coeff.:	NA	Flash Point:	NA
Flash Point Method:	NA	Upper Flammability Limit (UFL):	NA
Lower Flammability Limit (LFL):	NA	Burning Rate:	NA
Auto Ignition:	NA		

## \*\*\* Section 10 - Chemical Stability & Reactivity Information \*\*\*

### Chemical Stability

This is a stable material.

Chemical Stability: Conditions to Avoid

Dust presents moderate fire and explosion hazards.

### Incompatibility

Material may be incompatible with acids, bases and oxidizers.

### Hazardous Decomposition

Decomposition of this product may yield metallic oxides.

# Material Safety Data Sheet

Material Name: Carbon and Alloy Steels

## Possibility of Hazardous Reactions

Will not occur.

### \*\*\* Section 11 - Toxicological Information \*\*\*

#### Acute Dose Effects

##### A: General Product Information

Chronic overexposure to iron oxide fumes may cause an early apparently benign pneumoconiosis (siderosis) with few or no symptoms. Overexposure to dusts and especially fumes containing elemental constituents of ferrous alloys may cause skin, nose, and eye irritation and lung changes in workers, potentially leading to pulmonary diseases.

Manganese fumes may cause metal fume fever with flu-like symptoms. Over exposure to manganese fumes can cause chronic manganese poisoning. Early symptoms include headaches, apathy, sleepiness, and weakness or cramps in the legs. Chronic overexposure can affect the central nervous system, ultimately leading to emotional disturbances, gait and balance difficulties, and paralysis.

Chromium and nickel compounds have been associated with allergic reactions and rashes, and lung changes. Nickel is a respiratory irritation and causes penumonitis. Hexavalent chromium compounds and some nickel compounds have been identified as potential human carcinogens.

##### B: Component Analysis - LD50/LC50

Iron oxide (1309-37-1)

Oral LD50 Rat: >10000 mg/kg

Nickel (7440-02-0)

Oral LD50 Rat: >9000 mg/kg

Manganese (7439-96-5)

Oral LD50 Rat: 9 g/kg

Carbon black (1333-86-4)

Oral LD50 Rat: >15400 mg/kg; Dermal LD50 Rabbit: >3 g/kg

Silicon (7440-21-3)

Oral LD50 Rat: 3160 mg/kg

#### Carcinogenicity

##### A: General Product Information

No information available for the product.

##### B: Component Carcinogenicity

Iron oxide (1309-37-1)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Supplement 7 [1987], Monograph 1 [1972] (Group 3 (not classifiable))

Nickel (7440-02-0)

ACGIH: A5 - Not Suspected as a Human Carcinogen

NIOSH: potential occupational carcinogen

NTP: Reasonably Anticipated To Be A Human Carcinogen (Possible Select Carcinogen)

IARC: Monograph 49 [1990], Supplement 7 [1987] (Group 2B (possibly carcinogenic to humans))

Chromium (7440-47-3)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Monograph 49 [1990] (listed under Chromium and Chromium compounds), Supplement 7 [1987] (Group 3 (not classifiable))

# Material Safety Data Sheet

Material Name: Carbon and Alloy Steels

Carbon black (1333-86-4)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

NIOSH: potential occupational carcinogen

IARC: Monograph 93 [In preparation], Monograph 65 [1996] (Group 2B (possibly carcinogenic to humans))

## \*\*\* Section 12 - Ecological Information \*\*\*

### Ecotoxicity

#### A: General Product Information

No information available for the product.

#### B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Nickel (7440-02-0)

Test & Species

Conditions

96 Hr LC50 Oncorhynchus mykiss 31.7 mg/L

adult

96 Hr LC50 Pimephales promelas 3.1 mg/L

96 Hr LC50 Brachydanio rerio >100 mg/L

72 Hr EC50 freshwater algae (4 species) 0.1 mg/L

72 Hr EC50 Selenastrum 0.18 mg/L

capricornutum

96 Hr EC50 water flea 510 µg/L

Carbon black (1333-86-4)

Test & Species

Conditions

24 Hr EC50 Daphnia magna >5600 mg/L

## \*\*\* Section 13 - Disposal Considerations \*\*\*

### US EPA Waste Number & Descriptions

#### Component Waste Numbers

Chromium (7440-47-3)

RCRA: 5.0 mg/L regulatory level

#### Disposal Instructions

Dispose in accordance to local, state, and federal regulations.

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

## \*\*\* Section 14 - Transportation Information \*\*\*

### US DOT Information

Shipping Name: Not Regulated

### TDG Information

Shipping Name: Not Regulated

## \*\*\* Section 15 - Regulatory Information \*\*\*

### US Federal Regulations

# Material Safety Data Sheet

Material Name: Carbon and Alloy Steels

## Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

### Nickel (7440-02-0)

SARA 313: 0.1 % de minimis concentration

CERCLA: 100 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is larger than 100 micrometers); 45.4 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is larger than 100 micrometers)

### Manganese (7439-96-5)

SARA 313: 1.0 % de minimis concentration

### Chromium (7440-47-3)

SARA 313: 1.0 % de minimis concentration

CERCLA: 5000 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is larger than 100 micrometers); 2270 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is larger than 100 micrometers)

## State Regulations

### A: General Product Information

Other state regulations may apply. Check individual state requirements.

### B: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Iron oxide	1309-37-1	Yes	Yes	Yes	Yes	Yes	Yes
Nickel	7440-02-0	Yes	Yes	Yes	Yes	Yes	Yes
Manganese	7439-96-5	Yes	Yes	Yes	Yes	Yes	Yes
Chromium	7440-47-3	Yes	Yes	Yes	Yes	Yes	Yes
Carbon black	1333-86-4	Yes	Yes	Yes	Yes	Yes	Yes
Silicon	7440-21-3	No	Yes	Yes	Yes	Yes	Yes
Molybdenum	7439-98-7	Yes	Yes	Yes	Yes	Yes	Yes

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

**WARNING!** This product contains a chemical known to the state of California to cause cancer.

## Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Iron oxide	1309-37-1	1 %
Nickel	7440-02-0	0.1 %
Manganese	7439-96-5	1 %
Chromium	7440-47-3	0.1 %

## Additional Regulatory Information

### A: General Product Information

No information available for the product.

# Material Safety Data Sheet

Material Name: Carbon and Alloy Steels

## B: Component Analysis - Inventory

Component	CAS #	TSCA	CAN	EEC
Iron oxide	1309-37-1	Yes	DSL	EINECS
Nickel	7440-02-0	Yes	DSL	EINECS
Manganese	7439-96-5	Yes	DSL	EINECS
Chromium	7440-47-3	Yes	DSL	EINECS
Carbon black	1333-86-4	Yes	DSL	EINECS
Silicon	7440-21-3	Yes	DSL	EINECS
Molybdenum	7439-98-7	Yes	DSL	EINECS

### \*\*\* Section 16 - Other Information \*\*\*

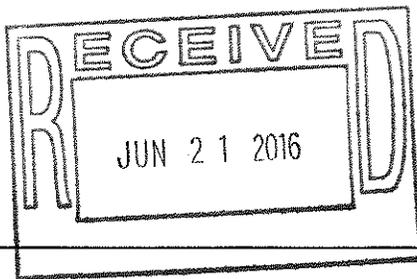
#### Other Information

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use.

#### Key/Legend

ACGIH = American Conference of Governmental Industrial Hygienists; ADG = Australian Code for the Transport of Dangerous Goods by Road and Rail; ADR/RID = European Agreement of Dangerous Goods by Road/Rail; AS = Standards Australia; DFG = Deutsche Forschungsgemeinschaft; DOT = Department of Transportation; DSL = Domestic Substances List; EEC = European Economic Community; EINECS = European Inventory of Existing Commercial Chemical Substances; ELINCS = European List of Notified Chemical Substances; EU = European Union; HMIS = Hazardous Materials Identification System; IARC = International Agency for Research on Cancer; IMO = International Maritime Organization; IATA = International Air Transport Association; MAK = Maximum Concentration Value in the Workplace; NDSL = Non-Domestic Substances List; NFPA = National Fire Protection Association; NOHSC = National Occupational Health & Safety Commission; NTP = National Toxicology Program; STEL = Short-term Exposure Limit; TDG = Transportation of Dangerous Goods; TLV = Threshold Limit Value; TSCA = Toxic Substances Control Act; TWA = Time Weighted Average

End of Sheet



MSDS Number	Name and Type of Material (Attach and number SDS)	Estimated Usage (gal/yr)	VOC Content (lb/gal)	Method of Application	Amount Shipped as Waste
1	TBL6-A/& TBL-A Armourliner Truck Bed Liner with Activator	26	3.2	a	0.1
2	Aquence KL 7919	2,860	0.066	b	20
3	Sun/Steel #38 Dark Grey	1593	2.35	b	12
4	Sun/Steel #1403 Ultra Deep Base Gloss	6.5	3.08	b	0
5	Sun/Steel # 1438 Yellow Tint Base	45.5	2.54	b	1
6	Sun/Steel # 1400 Hi-Hide White Gloss	13	2.78	b	0.1
7	Sun/Steel # 1404 Neutral Base Gloss	208	3.17	b	2
8	Sun/Steel # 1401 Pastel Base Gloss	6.5	2.77	b	0
9	Sun/Steel # 1490 Gloss Black	325	3.05	b	3
10	Sun/Steel # 1402 Deep Base Gloss	2080	2.97	b	10
11	Klean Strip Green Odorless Mineral Spirits	13	1.9	b	0
12	Klean Strip Denatured Alcohol	6.5	6.17	f (rags)	0
13	Chemstation 51551 Degreaser	2000	0.84	f (rags)	0

**voc calculations**

# 1 - Armor liner 26gal @ 3.2 lbs/ Gal =83.2 lbs
#2 Aquence KL 7919 2860 gal @ 0.066 = 188.8lbs
#3-10 Sun/Steel Paints 4277.5 gal @ 3.17 =13560
#11- Klean-Strip Odorless Mineral Spirits 13@ 1.9= 24.7
#12 Klean strip Denatured Alcohol 6.5@ 6.62 =43.4
#13 Chemstation 51551 2000 gal @ .84 lbs/gal = 1680

**HAP Calculations**

Toluene 26 gal @ 8.5 lbs Gal X 4.5% = 9.945 lbs
Xylene 26 Gal @ 8.5 lbs Gal x 25.5% = 56.36 lbs
Ethylene Glycol 4277.5 gal 9.95 lbs/gal x 15% =6384 lbs
Ethylene Glycol 2000 gal 8.4 lbs/gal x 10% =1680 lbs
Methanol 6.5 gal @ 6.65 lbs/gal x 60% = 25.94 lbs