



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY

601 57th Street, SE
 Charleston, WV 25304
 (304) 926-0475
www.dep.wv.gov/daq

APPLICATION FOR NSR PERMIT
AND
TITLE V PERMIT REVISION
(OPTIONAL)

PLEASE CHECK ALL THAT APPLY TO NSR (45CSR13) (IF KNOWN):

- CONSTRUCTION MODIFICATION RELOCATION
 CLASS I ADMINISTRATIVE UPDATE TEMPORARY
 CLASS II ADMINISTRATIVE UPDATE AFTER-THE-FACT

PLEASE CHECK TYPE OF 45CSR30 (TITLE V) REVISION (IF ANY):

- ADMINISTRATIVE AMENDMENT MINOR MODIFICATION
 SIGNIFICANT MODIFICATION

IF ANY BOX ABOVE IS CHECKED, INCLUDE TITLE V REVISION INFORMATION AS ATTACHMENT S TO THIS APPLICATION

FOR TITLE V FACILITIES ONLY: Please refer to "Title V Revision Guidance" in order to determine your Title V Revision options (Appendix A, "Title V Permit Revision Flowchart") and ability to operate with the changes requested in this Permit Application.

Section I. General

1. Name of applicant (as registered with the WV Secretary of State's Office): <i>HUNTINGTON STEEL & SUPPLY COMPANY</i>		2. Federal Employer ID No. (FEIN): <i>55-0328678</i>	
3. Name of facility (if different from above):		4. The applicant is the: <input type="checkbox"/> OWNER <input type="checkbox"/> OPERATOR <input checked="" type="checkbox"/> BOTH	
5A. Applicant's mailing address: <i>100 THIRD AVE HUNTINGTON WV 25701</i>		5B. Facility's present physical address: <i>63 BUSINESS PARK DR HOLDEN, WV 25625</i>	
6. West Virginia Business Registration. Is the applicant a resident of the State of West Virginia? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO ⇨ If YES, provide a copy of the Certificate of Incorporation/Organization/Limited Partnership (one page) including any name change amendments or other Business Registration Certificate as Attachment A . ⇨ If NO, provide a copy of the Certificate of Authority/Authority of L.L.C./Registration (one page) including any name change amendments or other Business Certificate as Attachment A .			
7. If applicant is a subsidiary corporation, please provide the name of parent corporation:			
8. Does the applicant own, lease, have an option to buy or otherwise have control of the <i>proposed site</i> ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO ⇨ If YES, please explain: <i>OWN</i> ⇨ If NO, you are not eligible for a permit for this source.			
9. Type of plant or facility (stationary source) to be constructed, modified, relocated, administratively updated or temporarily permitted (e.g., coal preparation plant, primary crusher, etc.): <i>PAINT AND ABRASIVE BLAST</i>		10. North American Industry Classification System (NAICS) code for the facility: <i>423510</i>	
11A. DAQ Plant ID No. (for existing facilities only): -		11B. List all current 45CSR13 and 45CSR30 (Title V) permit numbers associated with this process (for existing facilities only):	
All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.			

12A.

⇒ For **Modifications, Administrative Updates** or **Temporary permits** at an existing facility, please provide directions to the *present location* of the facility from the nearest state road;

⇒ For **Construction** or **Relocation permits**, please provide directions to the *proposed new site location* from the nearest state road. Include a **MAP** as **Attachment B**.

TAKE EXIT FOR COPPERAS FORK ROAD OFF ST. RT. 1195. TURN LEFT ONTO COPPERAS FORK RD. TURN RIGHT ON TRACE AVE. TURN LEFT ON OLD DETAR RD. TURN LEFT ON LYMAN TERRACE. TURN RIGHT INTO BUSINESS PARK

12.B. New site address (if applicable):	12C. Nearest city or town: HOLDEN, WV	12D. County: LOGAN
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12.E. UTM Northing (KM): 4186886.11	12F. UTM Easting (KM): 407259	12G. UTM Zone: 17S
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13. Briefly describe the proposed change(s) at the facility:
WILL BLAST AND PAINT IN A BUILDING WE ONCE USED AS A STEEL WAREHOUSE

14A. Provide the date of anticipated installation or change: 07/01/2016 ⇒ If this is an After-The-Fact permit application, provide the date upon which the proposed change did happen: / /	14B. Date of anticipated Start-Up if a permit is granted: 07/01/2016
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14C. Provide a **Schedule** of the planned **Installation** of/Change to and **Start-Up** of each of the units proposed in this permit application as **Attachment C** (if more than one unit is involved).

15. Provide maximum projected **Operating Schedule** of activity/activities outlined in this application:
29 Hours Per Day 5 Days Per Week 52 Weeks Per Year

16. Is demolition or physical renovation at an existing facility involved? YES NO

17. **Risk Management Plans.** If this facility is subject to 112(r) of the 1990 CAAA, or will become subject due to proposed changes (for applicability help see www.epa.gov/ceppo), submit your **Risk Management Plan (RMP)** to U. S. EPA Region III.

18. **Regulatory Discussion.** List all Federal and State air pollution control regulations that you believe are applicable to the proposed process (*if known*). A list of possible applicable requirements is also included in Attachment S of this application (Title V Permit Revision Information). Discuss applicability and proposed demonstration(s) of compliance (*if known*). Provide this information as **Attachment D**.

Section II. Additional attachments and supporting documents.

19. Include a check payable to WVDEP – Division of Air Quality with the appropriate **application fee** (per 45CSR22 and 45CSR13).

20. Include a **Table of Contents** as the first page of your application package.

21. Provide a **Plot Plan**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is or is to be located as **Attachment E** (Refer to **Plot Plan Guidance**).

⇒ Indicate the location of the nearest occupied structure (e.g. church, school, business, residence).

22. Provide a **Detailed Process Flow Diagram(s)** showing each proposed or modified emissions unit, emission point and control device as **Attachment F**.

23. Provide a **Process Description** as **Attachment G**.

⇒ Also describe and quantify to the extent possible all changes made to the facility since the last permit review (if applicable).

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

24. Provide **Material Safety Data Sheets (MSDS)** for all materials processed, used or produced as **Attachment H**.
 ⇨ For chemical processes, provide a MSDS for each compound emitted to the air.

25. Fill out the **Emission Units Table** and provide it as **Attachment I**.

26. Fill out the **Emission Points Data Summary Sheet (Table 1 and Table 2)** and provide it as **Attachment J**.

27. Fill out the **Fugitive Emissions Data Summary Sheet** and provide it as **Attachment K**.

28. Check all applicable **Emissions Unit Data Sheets** listed below:

<input type="checkbox"/> Bulk Liquid Transfer Operations	<input type="checkbox"/> Haul Road Emissions	<input type="checkbox"/> Quarry
<input type="checkbox"/> Chemical Processes	<input type="checkbox"/> Hot Mix Asphalt Plant	<input type="checkbox"/> Solid Materials Sizing, Handling and Storage Facilities
<input type="checkbox"/> Concrete Batch Plant	<input type="checkbox"/> Incinerator	<input type="checkbox"/> Storage Tanks
<input type="checkbox"/> Grey Iron and Steel Foundry	<input type="checkbox"/> Indirect Heat Exchanger	

General Emission Unit, specify
PAINT BOOTH AND ABRASIVE BLAST AREA EUDS

Fill out and provide the **Emissions Unit Data Sheet(s)** as **Attachment L**.

29. Check all applicable **Air Pollution Control Device Sheets** listed below:

<input type="checkbox"/> Absorption Systems	<input type="checkbox"/> Baghouse	<input type="checkbox"/> Flare
<input type="checkbox"/> Adsorption Systems	<input type="checkbox"/> Condenser	<input type="checkbox"/> Mechanical Collector
<input type="checkbox"/> Afterburner	<input type="checkbox"/> Electrostatic Precipitator	<input type="checkbox"/> Wet Collecting System

Other Collectors, specify
PAINT FILTER

Fill out and provide the **Air Pollution Control Device Sheet(s)** as **Attachment M**.

30. Provide all **Supporting Emissions Calculations** as **Attachment N**, or attach the calculations directly to the forms listed in Items 28 through 31.

31. **Monitoring, Recordkeeping, Reporting and Testing Plans.** Attach proposed monitoring, recordkeeping, reporting and testing plans in order to demonstrate compliance with the proposed emissions limits and operating parameters in this permit application. Provide this information as **Attachment O**.

➤ Please be aware that all permits must be practically enforceable whether or not the applicant chooses to propose such measures. Additionally, the DAQ may not be able to accept all measures proposed by the applicant. If none of these plans are proposed by the applicant, DAQ will develop such plans and include them in the permit.

32. **Public Notice.** At the time that the application is submitted, place a **Class I Legal Advertisement** in a newspaper of general circulation in the area where the source is or will be located (See 45CSR§13-8.3 through 45CSR§13-8.5 and **Example Legal Advertisement** for details). Please submit the **Affidavit of Publication** as **Attachment P** immediately upon receipt.

33. **Business Confidentiality Claims.** Does this application include confidential information (per 45CSR31)?

YES NO

➤ If **YES**, identify each segment of information on each page that is submitted as confidential and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's "**Precautionary Notice – Claims of Confidentiality**" guidance found in the **General Instructions** as **Attachment Q**.

Section III. Certification of Information

34. **Authority/Delegation of Authority.** Only required when someone other than the responsible official signs the application. Check applicable **Authority Form** below:

<input checked="" type="checkbox"/> Authority of Corporation or Other Business Entity	<input type="checkbox"/> Authority of Partnership
<input type="checkbox"/> Authority of Governmental Agency	<input type="checkbox"/> Authority of Limited Partnership

Submit completed and signed **Authority Form** as **Attachment R**.

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

35A. **Certification of Information.** To certify this permit application, a Responsible Official (per 45CSR§13-2.22 and 45CSR§30-2.28) or Authorized Representative shall check the appropriate box and sign below.

Certification of Truth, Accuracy, and Completeness

I, the undersigned **Responsible Official** / **Authorized Representative**, hereby certify that all information contained in this application and any supporting documents appended hereto, is true, accurate, and complete based on information and belief after reasonable inquiry I further agree to assume responsibility for the construction, modification and/or relocation and operation of the stationary source described herein in accordance with this application and any amendments thereto, as well as the Department of Environmental Protection, Division of Air Quality permit issued in accordance with this application, along with all applicable rules and regulations of the West Virginia Division of Air Quality and W.Va. Code § 22-5-1 et seq. (State Air Pollution Control Act). If the business or agency changes its Responsible Official or Authorized Representative, the Director of the Division of Air Quality will be notified in writing within 30 days of the official change.

Compliance Certification

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

SIGNATURE Marc E Rutherford DATE: 4/25/16
(Please use blue ink) (Please use blue ink)

35B. Printed name of signee: Marc E. Rutherford 35C. Title: President

35D. E-mail: marcru@huntingtonsteel.com 36E. Phone: (304) 522-8218 36F. FAX: (304) 522-1824

36A. Printed name of contact person (if different from above): RICHARD ENGLISH 36B. Title: OPERATIONS MANAGER

36C. E-mail: REnglish@HUNTINGSTEEL.COM 36D. Phone: 304-522-8218 36E. FAX: 304-522-1824

PLEASE CHECK ALL APPLICABLE ATTACHMENTS INCLUDED WITH THIS PERMIT APPLICATION:

- | | |
|--|---|
| <input checked="" type="checkbox"/> Attachment A: Business Certificate | <input type="checkbox"/> Attachment K: Fugitive Emissions Data Summary Sheet * |
| <input checked="" type="checkbox"/> Attachment B: Map(s) | <input checked="" type="checkbox"/> Attachment L: Emissions Unit Data Sheet(s) |
| <input type="checkbox"/> Attachment C: Installation and Start Up Schedule * | <input checked="" type="checkbox"/> Attachment M: Air Pollution Control Device Sheet(s) |
| <input type="checkbox"/> Attachment D: Regulatory Discussion * | <input checked="" type="checkbox"/> Attachment N: Supporting Emissions Calculations |
| <input checked="" type="checkbox"/> Attachment E: Plot Plan | <input type="checkbox"/> Attachment O: Monitoring/Recordkeeping/Reporting/Testing Plans * |
| <input checked="" type="checkbox"/> Attachment F: Detailed Process Flow Diagram(s) | <input checked="" type="checkbox"/> Attachment P: Public Notice |
| <input checked="" type="checkbox"/> Attachment G: Process Description | <input checked="" type="checkbox"/> Attachment Q: Business Confidential Claims * |
| <input checked="" type="checkbox"/> Attachment H: Material Safety Data Sheets (MSDS) | <input checked="" type="checkbox"/> Attachment R: Authority Forms |
| <input checked="" type="checkbox"/> Attachment I: Emission Units Table | <input type="checkbox"/> Attachment S: Title V Permit Revision Information |
| <input checked="" type="checkbox"/> Attachment J: Emission Points Data Summary Sheet | <input type="checkbox"/> Application Fee |

Please mail an original and three (3) copies of the complete permit application with the signature(s) to the DAQ, Permitting Section, at the address listed on the first page of this application. Please DO NOT fax permit applications.

FOR AGENCY USE ONLY – IF THIS IS A TITLE V SOURCE:

- Forward 1 copy of the application to the Title V Permitting Group and:
- For Title V Administrative Amendments:
 - NSR permit writer should notify Title V permit writer of draft permit,
- For Title V Minor Modifications:
 - Title V permit writer should send appropriate notification to EPA and affected states within 5 days of receipt,
 - NSR permit writer should notify Title V permit writer of draft permit.
- For Title V Significant Modifications processed in parallel with NSR Permit revision:
 - NSR permit writer should notify a Title V permit writer of draft permit,
 - Public notice should reference both 45CSR13 and Title V permits,
 - EPA has 45 day review period of a draft permit.

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

**WEST VIRGINIA
STATE TAX DEPARTMENT
BUSINESS REGISTRATION
CERTIFICATE**

ISSUED TO:
**HUNTINGTON STEEL & SUPPLY COMPANY
ROUTE 119
HOLDEN, WV 25625-0000**

BUSINESS REGISTRATION ACCOUNT NUMBER: **1034-2444**

This certificate is issued on: **06/22/2011**

*This certificate is issued by
the West Virginia State Tax Commissioner
in accordance with Chapter 11, Article 12, of the West Virginia Code*

*The person or organization identified on this certificate is registered
to conduct business in the State of West Virginia at the location above.*

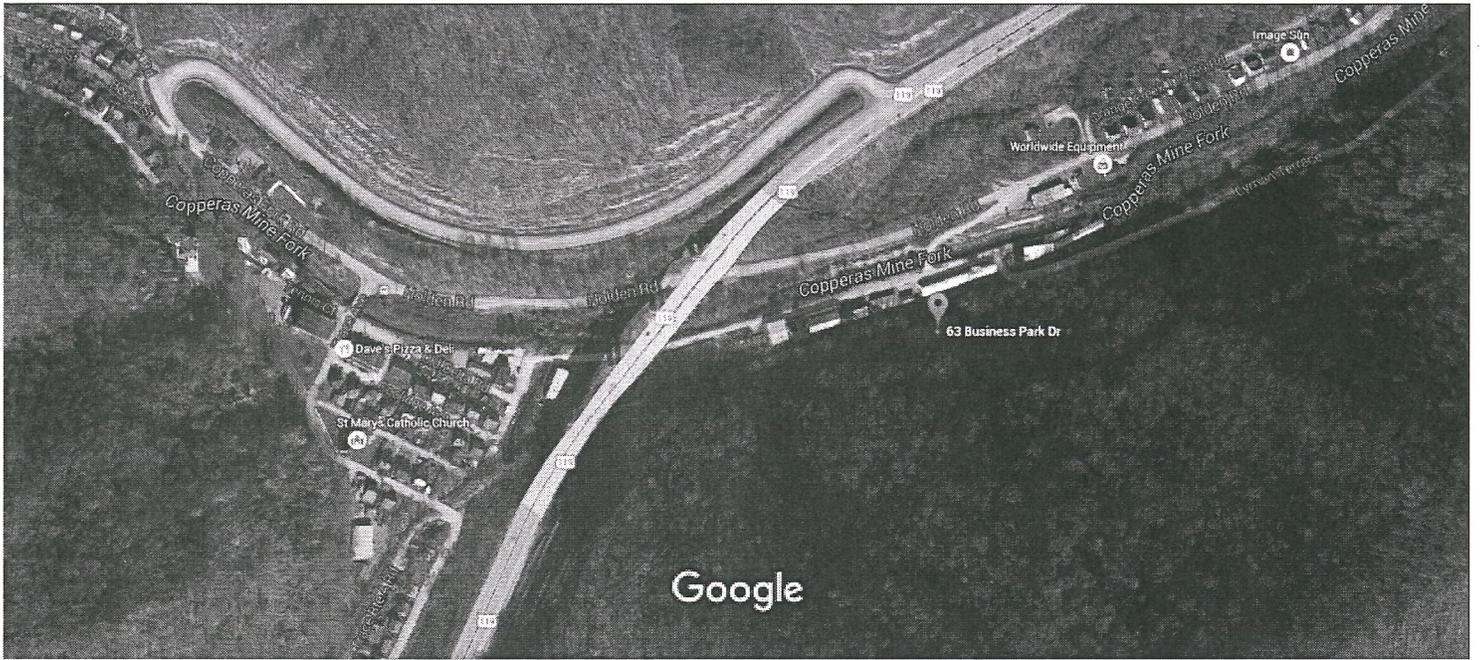
This certificate is not transferrable and must be displayed at the location for which issued.

This certificate shall be permanent until cessation of the business for which the certificate of registration was granted or until it is suspended, revoked or cancelled by the Tax Commissioner.

Change in name or change of location shall be considered a cessation of the business and a new certificate shall be required.

TRAVELING/STREET VENDORS: Must carry a copy of this certificate in every vehicle operated by them.
CONTRACTORS, DRILLING OPERATORS, TIMBER/LOGGING OPERATIONS: Must have a copy of this certificate displayed at every job site within West Virginia.

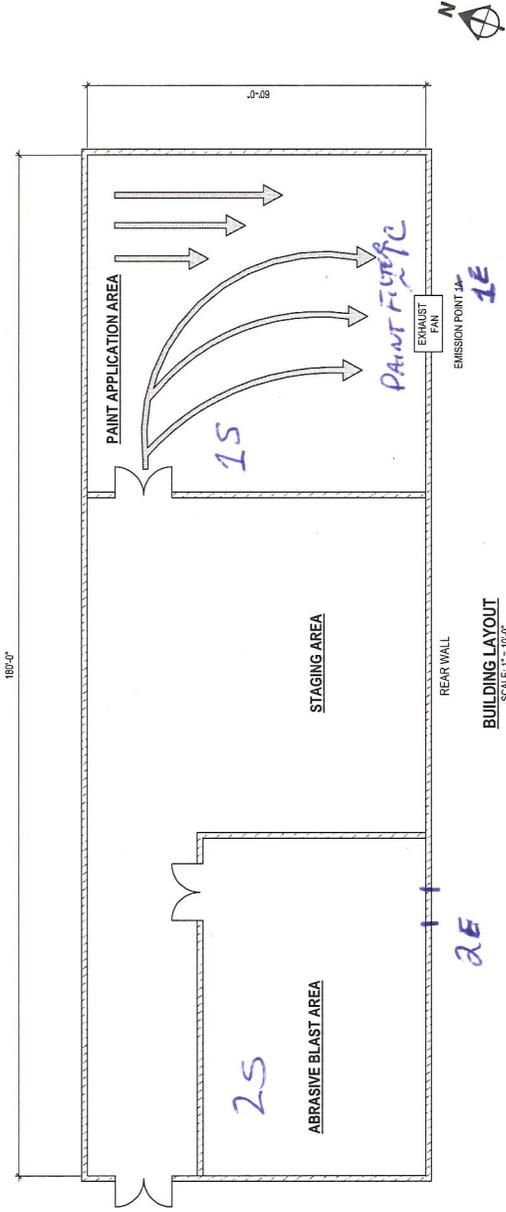
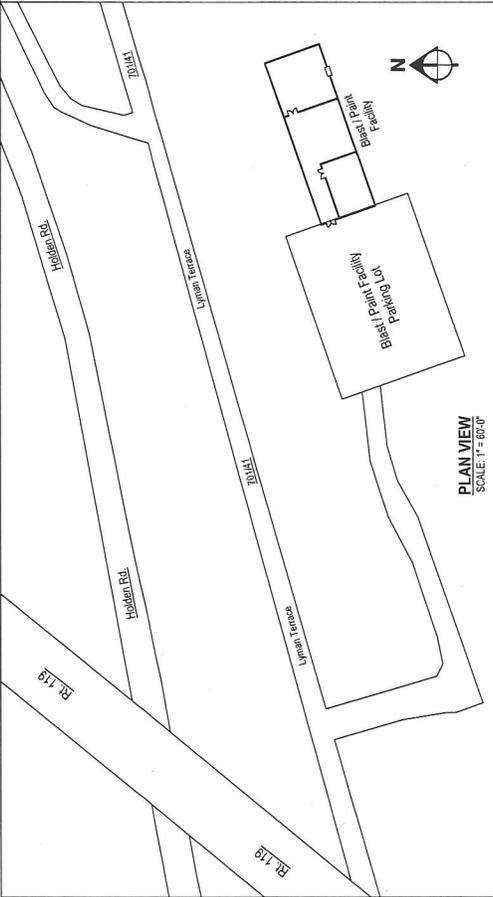
Google Maps 63 Business Park Dr



Imagery ©2016 Google, Map data ©2016 Google 200 ft

63 Business Park Dr
Holden, WV 25625

ATTACHMENT E



IO V

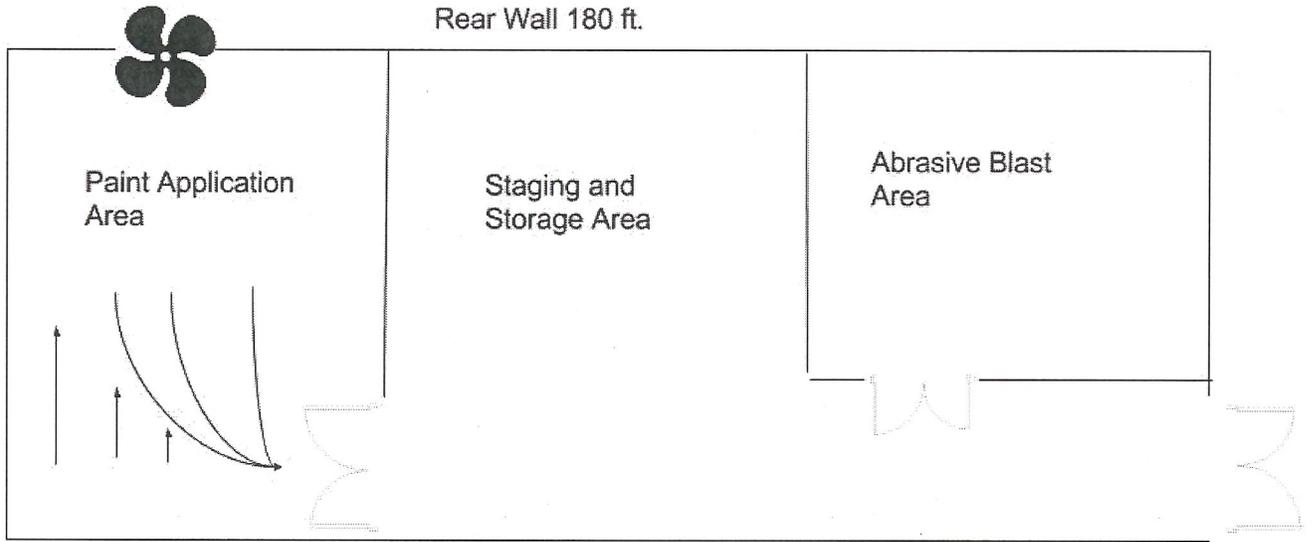
NO.	REVISIONS	DATE	BY
1	ISSUED FOR PERMIT		
2			
3			
4			
5			

huntington steel
100 3rd Avenue
Huntington, WV 25701
Ph: 304-522-8218 Fax: 304-522-1824

HUNTINGTON STEEL ABRASIVE BLAST AND PAINT FACILITY

NOTES:
True North = N
UTM Easting = 407259
UTM Northing = 4186886.11
Elevation = 227.4m
UTM Zone = 17S

Process Flow Diagram



Huntington Steel & Supply Co.
Surface Coating Process Description

Purpose: The purpose of this document is to describe the spray coating process located at 63 Business Park Drive, Holden West Virginia.

Scope: The spray coating process is used to apply surface coatings onto miscellaneous steel parts. Utilizing an airless spray gun, paint is atomized and emitted from the nozzle of the spray gun onto the part or parts. Due to the nature of the process some paint is introduced into the ambient air known as spray off. The spray off is collected using a ventilation fan drawing the atomized paint into an fiberglass filter meeting the regulatory standards for paint booth operations (EPA, NFPA #33, OSHA #1910.107) and the Maximum Achievable Control Technology requirements with West Virginia State Regulation (45CSR13). The entire process is enclosed within a room as described in attachment E of this application, and all spray off is collected within the control technology.(fan and filter). All coatings and solvents have been documented in attachment N, with item specific details located in attachment I of this application.



USA SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: **CHEMLOK 220**
 Product Use/Class: **ADHESIVE**

LORD Corporation
 111 LORD Drive
 Cary, NC 27511-7923

Telephone: 814 868-3180
 Non-Transportation Emergency: 814 763-2345
 Chemtrec 24 Hr Transportation Emergency No.
 800 424-9300 (Outside Continental U.S. 703 527-3887)

EFFECTIVE DATE: 02/03/2015

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

Flammable liquids Category 3
 Acute toxicity Dermal Category 4 - 28.2% of the mixture consists of ingredient(s) of unknown toxicity.
 Skin corrosion/irritation Category 1
 Serious eye damage/eye irritation Category 1
 Skin sensitization Category 1
 Carcinogenicity Category 1B
 Reproductive toxicity Category 1A
 Specific target organ systemic toxicity (single exposure) Category 3
 Specific target organ systemic toxicity (single exposure) Category 1 Central nervous system, Liver, Respiratory system, Kidney
 Specific target organ systemic toxicity (repeated exposure) Category 2 Ears, Kidney
 Specific target organ systemic toxicity (repeated exposure) Category 1 Liver, Nervous system, Respiratory system, Lungs
 Hazardous to the aquatic environment - acute hazard Category 2
 Hazardous to the aquatic environment - chronic hazard Category 2

GHS LABEL ELEMENTS:

Symbol(s)



Signal Word

DANGER

Hazard Statements

Flammable liquid and vapor.
 Harmful in contact with skin.
 Causes severe skin burns and eye damage.
 Causes serious eye damage.
 May cause an allergic skin reaction.
 May cause cancer.
 May damage fertility or the unborn child.
 May cause harm to breast-fed children.
 May cause drowsiness or dizziness.
 May cause respiratory irritation.
 Causes damage to organs.(Central nervous system, Liver, Respiratory system, Kidney)
 May cause damage to organs through prolonged or repeated exposure.(Ears, Kidney)

30000001179

Causes damage to organs through prolonged or repeated exposure. (Liver, Nervous system, Respiratory system, Lungs)
Toxic to aquatic life.
Toxic to aquatic life with long lasting effects.

Precautionary Statements

Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Ground/Bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves/protective clothing/eye protection/face protection.
Use personal protective equipment as required.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Avoid release to the environment.

Response

In case of fire: refer to section 5 of SDS for extinguishing media.
Immediately call a POISON CENTER or doctor/physician.
Specific treatment (see supplemental first aid instructions on this label).
IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
Wash contaminated clothing before reuse.
Collect spillage.

Storage

Store in a well-ventilated place. Keep cool.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.

Disposal:

Dispose of contents/container in accordance with waste/disposal laws and regulations of your country or particular locality.

Other Hazards:

This product contains component(s) which have the following warnings; however based on the GHS classification criteria of your country or locale, the product mixture may be outside the respective category(s).

Acute: Vapor harmful; may affect the brain or nervous system causing dizziness, headache or nausea. Possible irritation of the respiratory system can occur causing a variety of symptoms such as dryness of the throat, tightness of the chest, and shortness of breath. In elevated-temperature applications, product may release vapors that may produce cyanosis in the absence of sufficient ventilation or adequate respiratory protection. May cause central nervous system depression characterized by the following progressive steps: headache, dizziness, staggering gait, confusion, unconsciousness or coma. Harmful if swallowed. Ingestion is not an expected route of entry in industrial or commercial uses.

Chronic: May affect the gastrointestinal system. May affect the blood and blood-forming organs. IARC and NTP have determined that there is sufficient evidence for carcinogenicity of tetrachloroethylene to experimental animals and limited evidence in humans. Overexposure to lead in this product can damage the nervous, urinary, gastrointestinal, blood, blood-forming, and reproductive systems. Lead and lead compounds have been classified by IARC as probable human carcinogens (Group 2A), and by NTP as reasonably anticipated human carcinogens. Prolonged or repeated contact may result in dermatitis. Ethylbenzene has been classified by IARC as a possible human carcinogen (Group 2B) and reported by NTP to show clear evidence for carcinogenicity in animals. IARC has

designated carbon black as Group 2B - inadequate evidence for carcinogenicity in humans, but sufficient evidence in experimental animals. The nitrogen substituted aromatic in this product gave positive results for mutagenicity in an Ames Assay study while two other mutagenicity studies proved negative.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight % Less Than
Xylene	1330-20-7	50.0 %
Tetrachloroethylene	127-18-4	20.0 %
Ethyl benzene	100-41-4	15.0 %
Carbon black	1333-86-4	5.0 %
Nitrogen substituted aromatic	PROPRIETARY	5.0 %
Inorganic lead salt	12141-20-7	5.0 %

4. FIRST AID MEASURES

FIRST AID - EYE CONTACT: Flush eyes immediately with large amount of water for at least 15 minutes holding eyelids open while flushing. Get prompt medical attention.

FIRST AID - SKIN CONTACT: Flush contaminated skin with large amounts of water while removing contaminated clothing. Wash affected skin areas with soap and water. Get medical attention if symptoms occur.

FIRST AID - INHALATION: Move person to fresh air. Restore and support continued breathing. If breathing is difficult, give oxygen. Get immediate medical attention.

FIRST AID - INGESTION: If swallowed, do not induce vomiting. Call a physician or poison control center immediately for further instructions. Never give anything by mouth if victim is rapidly losing consciousness, unconscious or convulsing.

5. FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Carbon Dioxide, Dry Chemical, Foam, Water Fog

SPECIFIC HAZARDS POSSIBLY ARISING FROM THE CHEMICAL: Flammable liquid and vapor. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, open flame, and other sources of ignition. Closed containers may rupture when exposed to extreme heat. Use water spray to keep fire exposed containers cool. During a fire, irritating and/or toxic gases and particulate may be generated by thermal decomposition or combustion.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS: Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA). Water spray may be ineffective. If water is used, fog nozzles are preferable.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES: Remove all sources of ignition (flame, hot surfaces, and electrical, static or frictional sparks). Avoid contact. Avoid breathing vapors. Use self-contained breathing equipment.

ENVIRONMENTAL PRECAUTIONS: Do not contaminate bodies of water, waterways, or ditches, with chemical or used container.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANUP: Keep non-essential personnel a safe distance away from the spill area. Notify appropriate authorities if necessary. Avoid contact. Before attempting cleanup, refer to hazard caution information in other sections of the SDS form. Contain and remove with inert absorbent material and non-sparking tools.

7. HANDLING AND STORAGE

HANDLING: Keep closure tight and container upright to prevent leakage. Ground and bond containers when transferring material. Avoid skin and eye contact. Wash thoroughly after handling. Avoid breathing of vapor or spray mists. Do not handle until all safety precautions have been read and understood. Empty containers should not be re-used. Avoid breathing sanding dust from this product. Avoid using pressurizable equipment which has aluminum or zinc parts; this product contains chlorinated solvents. Use with adequate ventilation. Because empty containers may retain product residue and flammable vapors, keep away from heat, sparks and flame; do not cut, puncture or weld on or near the empty container. This product contains inorganic lead; potential lead exposure exists when applying or sanding this product. Use of this product should comply with the OSHA Lead Standard (29 CFR 1910.1025) or where applicable the OSHA Construction Standard for lead (29 CFR 1926.62). Do not smoke where this product is used or stored.

STORAGE: Do not store or use near heat, sparks, or open flame. Refer to OSHA 29CFR Part 1910.106 "Flammable and Combustible Liquids" for specific storage requirements. Store only in well-ventilated areas. Do not puncture, drag, or slide container. Keep container closed when not in use.

INCOMPATIBILITY: Strong oxidizers, acids, bases, water. Aluminum, zinc, caustics, halogens.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT EXPOSURE LIMIT

Chemical Name	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING	Skin
Xylene	100 ppm	150 ppm	435 mg/m3 100 ppm	N.E.	N.A.
Tetrachloroethylene	25 ppm	100 ppm	100 ppm	100 ppm	N.A.
Ethyl benzene	20 ppm	N.E.	435 mg/m3 100 ppm	N.E.	N.A.
Carbon black	3 mg/m3	N.E.	3.5 mg/m3	N.E.	N.A.
Nitrogen substituted aromatic	N.E.	N.E.	N.E.	N.E.	N.A.
Inorganic lead salt	0.05 mg/m3	N.E.	0.05 mg/m3	N.E.	N.A.

N.A. - Not Applicable, N.E. - Not Established, S - Skin Designation

Engineering controls: Sufficient ventilation in pattern and volume should be provided in order to maintain air contaminant levels below recommended exposure limits. Caution: Solvent vapors are heavier than air and collect in lower levels of the work area. Sufficient ventilation (using explosion-proof equipment) should be provided to prevent flammable vapor/air mixtures from accumulating.

PERSONAL PROTECTION MEASURES/EQUIPMENT:

RESPIRATORY PROTECTION: Use a NIOSH approved chemical/mechanical filter respirator designed to remove a combination of particulates and organic vapor if occupational limits are exceeded. For emergency situations, confined space use, or other conditions where exposure limits may be greatly exceeded, use an approved air-supplied respirator. Observe OSHA regulations (29CFR 1910.134) for respirator use.

SKIN PROTECTION: Use neoprene, nitrile, or rubber gloves to prevent skin contact.

EYE PROTECTION: Use safety eyewear including safety glasses with side shields and chemical goggles where splashing may occur.

OTHER PROTECTIVE EQUIPMENT: Use disposable or impervious clothing if work clothing contamination is likely. Remove and wash contaminated clothing before reuse.

HYGIENIC PRACTICES: Wash hands before eating, smoking, or using toilet facility. Do not smoke in any chemical handling or storage area. Food or beverages should not be consumed anywhere this product is handled or stored. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Typical values, not to be used for specification purposes.

ODOR:	Solvent	VAPOR PRESSURE:	N.D.
APPEARANCE:	Black	VAPOR DENSITY:	Heavier than Air
PHYSICAL STATE:	Liquid	LOWER EXPLOSIVE LIMIT:	1 %(V)
FLASH POINT:	83 °F, 28 °C Setaflash	UPPER EXPLOSIVE LIMIT:	7 %(V)
	Closed Cup		
BOILING RANGE:	121 - 141 °C	EVAPORATION RATE:	Slower than n-butyl- acetate
AUTOIGNITION TEMPERATURE:	N.D.	DENSITY:	1.07 g/cm ³ - 8.93 lb/gal
DECOMPOSITION TEMPERATURE:	N.D.	VISCOSITY, DYNAMIC:	≥135 mPa.s @ 25 °C
ODOR THRESHOLD:	N.D.	VISCOSITY, KINEMATIC:	≥126 mm ² /s @ 25 °C
SOLUBILITY IN H₂O:	Insoluble	VOLATILE BY WEIGHT:	75.21 %
pH:	N.A.	VOLATILE BY VOLUME:	84.10 %
FREEZE POINT:	N.D.	VOC CALCULATED:	5.76 lb/gal, 690 g/l
COEFFICIENT OF WATER/OIL DISTRIBUTION:	N.D.	METHOD 24:	6.17 lb/gallon

LEGEND: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

10. STABILITY AND REACTIVITY

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur under normal conditions.

STABILITY: Product is stable under normal storage conditions. Product is stable under normal storage conditions.

CONDITIONS TO AVOID: High temperatures. Sources of ignition.; Aluminum or galvanized parts in a closed system.

INCOMPATIBILITY: Strong oxidizers, acids, bases, water.; Aluminum, zinc, caustics, halogens.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon dioxide, carbon monoxide, chlorine, hydrogen chloride, Bromine, hydrogen bromide, Phosgene, Lead fume, Oxides of nitrogen

11. TOXICOLOGICAL INFORMATION

EXPOSURE PATH: Refer to section 2 of this SDS.

SYMPTOMS: Refer to section 2 of this SDS.

TOXICITY MEASURES:

Chemical Name	LD50/LC50
Xylene	Oral LD50: Rat 3,500 mg/kg Dermal LD50: Rabbit > 1,700 mg/kg Dermal LD50: Rabbit > 4,350 mg/kg Inhalation LC50: Rat 29.08 mg/l /4 h
Tetrachloroethylene	Oral LD50: Rat 2,629 mg/kg Dermal LD50: Mouse 2,800 mg/kg Inhalation LC50: Rat 27.8 mg/l /4 h
Ethyl benzene	Oral LD50: Rat 3,500 mg/kg Dermal LD50: Rabbit 15,400 mg/kg Inhalation LC50: Rat 17.2 mg/l /4 h
Carbon black	Oral LD50: Rat > 15,400 mg/kg Dermal LD50: Rabbit > 3 g/kg GHS LC50 (vapour): rat 55 mg/l /
Nitrogen substituted aromatic	Oral LD50: rat 1,100 mg/kg
Inorganic lead salt	GHS LC50 (vapour): rat 55 mg/l /

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12. ECOLOGICAL INFORMATION

ECOTOXICITY:

<u>Chemical Name</u>	<u>Ecotoxicity</u>
Xylene	<p><u>Fish:</u> Pimephales promelas 13.4 mg/196 h flow-through Oncorhynchus mykiss 2.661 - 4.093 mg/196 h Static Oncorhynchus mykiss 13.5 - 17.3 mg/196 h Lepomis macrochirus 13.1 - 16.5 mg/196 h flow-through Lepomis macrochirus 19 mg/196 h Lepomis macrochirus 7.711 - 9.591 mg/196 h Static Pimephales promelas 23.53 - 29.97 mg/196 h Static Cyprinus carpio 780 mg/196 h semi-static Cyprinus carpio > 780 mg/196 h Poecilia reticulata 30.26 - 40.75 mg/196 h Static <u>Invertebrates:</u> water flea 3.82 mg/148 h Gammarus lacustris 0.6 mg/148 h</p>
Tetrachloroethylene	<p><u>Fish:</u> Pimephales promelas 12.4 - 14.4 mg/196 h flow-through Pimephales promelas 8.6 - 13.5 mg/196 h Static Lepomis macrochirus 11.0 - 15.0 mg/196 h Static Oncorhynchus mykiss 4.73 - 5.27 mg/196 h flow-through <u>Invertebrates:</u> Daphnia magna 6.1 - 9.0 mg/148 h Static <u>Plants:</u> Pseudokirchneriella subcapitata > 500 mg/196 h</p>
Ethyl benzene	<p><u>Fish:</u> Oncorhynchus mykiss 11.0 - 18.0 mg/196 h Static Oncorhynchus mykiss 4.2 mg/196 h semi-static Pimephales promelas 7.55 - 11 mg/196 h flow-through Lepomis macrochirus 32 mg/196 h Static Pimephales promelas 9.1 - 15.6 mg/196 h Static Poecilia reticulata 9.6 mg/196 h Static <u>Invertebrates:</u> Daphnia magna 1.8 - 2.4 mg/148 h <u>Plants:</u> Pseudokirchneriella subcapitata 4.6 mg/172 h Pseudokirchneriella subcapitata > 438 mg/196 h Pseudokirchneriella subcapitata 2.6 - 11.3 mg/172 h Static Pseudokirchneriella subcapitata 1.7 - 7.6 mg/196 h Static</p>
Carbon black	N.D.
Nitrogen substituted aromatic	N.D.
Inorganic lead salt	N.D.

PERSISTENCE AND DEGRADABILITY: Not determined for this product.

BIOACCUMULATIVE: Not determined for this product.

MOBILITY IN SOIL: Not determined for this product.

OTHER ADVERSE EFFECTS: Not determined for this product.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose of contents/container in accordance with waste/disposal laws and regulations of your country or particular locality. Disposal should be done in accordance with Federal (40CFR Part 261), state and local environmental control regulations. If waste is determined to be hazardous, use licensed hazardous waste transporter and disposal facility.

14. TRANSPORT INFORMATION

US DOT Road

DOT Proper Shipping Name: Adhesives
DOT Hazard Class: 3

SECONDARY HAZARD: None
DOT UN/NA Number: 1133
Packing Group: III
Emergency Response Guide Number: 128

IATA Cargo

PROPER SHIPPING NAME: Adhesives
DOT Hazard Class: 3
HAZARD CLASS: None
UN-NUMBER: 1133
PACKING GROUP: III
EMS: 3L

IMDG

PROPER SHIPPING NAME: Adhesives
DOT Hazard Class: 3
HAZARD CLASS: None
UN-NUMBER: 1133
PACKING GROUP: III
EMS: F-E

The listed transportation classification applies to US DOT Road, IATA Cargo, and IMDG non-bulk shipments. It does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors. For the most accurate shipping information, refer to your transportation/compliance department.

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: AS FOLLOWS:

SARA SECTION 313

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372.:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Weight % Less Than</u>
Xylene	1330-20-7	50.0 %
Tetrachloroethylene	127-18-4	20.0 %
Ethyl benzene	100-41-4	15.0 %
Inorganic lead salt	12141-20-7	5.0 %

TOXIC SUBSTANCES CONTROL ACT:

INVENTORY STATUS

The chemical substances in this product are on the TSCA Section 8 Inventory.

EXPORT NOTIFICATION

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

NONE

16. OTHER INFORMATION

Under HazCom 2012 it is optional to continue using the HMIS rating system. It is important to ensure employees have been trained to recognize the different numeric ratings associated with the HazCom 2012 and HMIS schemes.

HMIS RATINGS - HEALTH: 2* FLAMMABILITY: 3 PHYSICAL HAZARD: 0

* - Indicates a chronic hazard; see Section 2

Revision: New GHS SDS Format

Effective Date: 02/03/2015

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DISCLAIMER

The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations.



USA SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: **CHEMLOK 205**
 Product Use/Class: **Adhesive and/or Primer**

LORD Corporation
 111 LORD Drive
 Cary, NC 27511-7923

Telephone: 814 868-3180
 Non-Transportation Emergency: 814 763-2345
 Chemtrec 24 Hr Transportation Emergency No.
 800 424-9300 (Outside Continental U.S. 703 527-3887)

EFFECTIVE DATE: 03/30/2015

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

Flammable liquids Category 2
 Acute toxicity Inhalation - Dust and Mist Category 3 - 10.5% of the mixture consists of ingredient(s) of unknown toxicity.
 Acute toxicity Inhalation - Vapours Category 4 - 10.6% of the mixture consists of ingredient(s) of unknown toxicity.
 Skin corrosion/irritation Category 2
 Serious eye damage/eye irritation Category 2A
 Germ cell mutagenicity Category 1B
 Carcinogenicity Category 2
 Reproductive toxicity Category 2
 Specific target organ systemic toxicity (single exposure) Category 3
 Specific target organ systemic toxicity (single exposure) Category 1 Central nervous system, Kidney, Liver, Respiratory system
 Specific target organ systemic toxicity (repeated exposure) Category 2 Ears, Liver, Kidney
 Specific target organ systemic toxicity (repeated exposure) Category 1 Nervous system, Body, Respiratory system, Lungs, Central nervous system, Peripheral nervous system
 Hazardous to the aquatic environment - acute hazard Category 1
 Hazardous to the aquatic environment - chronic hazard Category 1

GHS LABEL ELEMENTS:

Symbol(s)



Signal Word

DANGER

Hazard Statements

Highly flammable liquid and vapor.
 Toxic if inhaled.
 Causes skin irritation.
 Causes serious eye irritation.
 May cause genetic defects.
 Suspected of causing cancer.
 Suspected of damaging fertility or the unborn child.
 May cause harm to breast-fed children.
 May cause drowsiness or dizziness.
 May cause respiratory irritation.

30000001175

Causes damage to organs.(Central nervous system, Kidney, Liver, Respiratory system)
May cause damage to organs through prolonged or repeated exposure.(Ears, Liver, Kidney)
Causes damage to organs through prolonged or repeated exposure.(Nervous system, Body, Respiratory system, Lungs, Central nervous system, Peripheral nervous system)
Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

Precautionary Statements

Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Ground/Bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves/protective clothing/eye protection/face protection.
Use personal protective equipment as required.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.

Response

In case of fire: refer to section 5 of SDS for extinguishing media.
Call a POISON CENTER or doctor/physician.
Specific treatment (see supplemental first aid instructions on this label).
IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
If skin irritation occurs: Get medical advice/attention.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Collect spillage.

Storage

Store in a well-ventilated place. Keep cool.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.

Disposal:

Dispose of contents/container in accordance with waste/disposal laws and regulations of your country or particular locality.

Other Hazards:

This product contains component(s) which have the following warnings; however based on the GHS classification criteria of your country or locale, the product mixture may be outside the respective category(s).

Acute: Vapor harmful; may affect the brain or nervous system causing dizziness, headache or nausea. Possible irritation of the respiratory system can occur causing a variety of symptoms such as dryness of the throat, tightness of the chest, and shortness of breath. May cause central nervous system depression characterized by the following progressive steps: headache, dizziness, staggering gait, confusion, unconsciousness or coma.

Chronic: May affect the gastrointestinal system. May affect the blood and blood-forming organs. Prolonged or repeated contact may result in dermatitis. Ethylbenzene has been classified by IARC as a possible human carcinogen (Group 2B) and reported by NTP to show clear evidence for carcinogenicity in animals. IARC has designated carbon black as Group 2B - inadequate evidence for carcinogenicity in humans, but sufficient evidence in experimental animals. IARC has designated titanium dioxide (TiO₂) as Group 2B – possibly carcinogenic to humans in dust form. However, a number of long term animal studies and human epidemiology studies evaluating TiO₂ and workplace exposure show insufficient evidence for carcinogenic affects. EPA, NTP and OSHA do not designate TiO₂ as a carcinogen and ACGIH designates TiO₂ as A4 - not classifiable as a human carcinogen. TiO₂ is not present in this product as a dust and no airborne exposure is expected during application. IARC has designated Methyl isobutyl

ketone to be in Group 2B - possibly carcinogenic to humans. ACGIH considers Ethyl alcohol to be an A3 carcinogen (confirmed animal carcinogen with unknown relevance in humans).

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight % Less Than
Methyl isobutyl ketone	108-10-1	60.0 %
Xylene	1330-20-7	15.0 %
Titanium dioxide	13463-67-7	10.0 %
Ethyl benzene	100-41-4	5.0 %
Methyl ethyl ketone	78-93-3	5.0 %
Propylene glycol monomethylether	107-98-2	5.0 %
Carbon black	1333-86-4	0.9 %
Ethyl alcohol	64-17-5	0.9 %

4. FIRST AID MEASURES

FIRST AID - EYE CONTACT: Flush eyes immediately with large amount of water for at least 15 minutes holding eyelids open while flushing. Get prompt medical attention.

FIRST AID - SKIN CONTACT: Flush contaminated skin with large amounts of water while removing contaminated clothing. Wash affected skin areas with soap and water. Get medical attention if symptoms occur.

FIRST AID - INHALATION: Move person to fresh air. Restore and support continued breathing. If breathing is difficult, give oxygen. Get immediate medical attention.

FIRST AID - INGESTION: If swallowed, do not induce vomiting. Call a physician or poison control center immediately for further instructions. Never give anything by mouth if victim is rapidly losing consciousness, unconscious or convulsing.

5. FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Carbon Dioxide, Dry Chemical, Foam, Water Fog

SPECIFIC HAZARDS POSSIBLY ARISING FROM THE CHEMICAL: Flammable liquid and vapor. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, open flame, and other sources of ignition. Closed containers may rupture when exposed to extreme heat. Use water spray to keep fire exposed containers cool. During a fire, irritating and/or toxic gases and particulate may be generated by thermal decomposition or combustion.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS: Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA). Water spray may be ineffective. If water is used, fog nozzles are preferable.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES: Remove all sources of ignition (flame, hot surfaces, and electrical, static or frictional sparks). Avoid contact. Avoid breathing vapors. Use self-contained breathing equipment.

ENVIRONMENTAL PRECAUTIONS: Do not contaminate bodies of water, waterways, or ditches, with chemical or used container.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANUP: Keep non-essential personnel a safe distance away from the spill area. Notify appropriate authorities if necessary. Avoid contact. Before attempting cleanup, refer to hazard caution information in other sections of the SDS form. Contain and remove with inert absorbent material and non-sparking tools.

7. HANDLING AND STORAGE

HANDLING: Keep closure tight and container upright to prevent leakage. Ground and bond containers when transferring material. Avoid skin and eye contact. Wash thoroughly after handling. Avoid breathing of vapor or spray mists. Do not handle until all safety precautions have been read and understood. Empty containers should not be re-used. Use with adequate ventilation. Because empty containers may retain product residue and flammable vapors, keep away from heat, sparks and flame; do not cut, puncture or weld on or near the empty container. Do not smoke where this product is used or stored.

STORAGE: Do not store or use near heat, sparks, or open flame. Refer to OSHA 29CFR Part 1910.106 "Flammable and Combustible Liquids" for specific storage requirements. Store only in well-ventilated areas. Do not puncture, drag, or slide container. Keep container closed when not in use.

INCOMPATIBILITY: Strong oxidizers, acids, bases, water.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT EXPOSURE LIMIT

<u>Chemical Name</u>	<u>ACGIH TLV-TWA</u>	<u>ACGIH TLV-STEL</u>	<u>OSHA PEL-TWA</u>	<u>OSHA PEL-CEILING</u>	<u>Skin</u>
Methyl isobutyl ketone	50 ppm	75 ppm	410 mg/m3 100 ppm	N.E.	N.A.
Xylene	100 ppm	150 ppm	435 mg/m3 100 ppm	N.E.	N.A.
Titanium dioxide	10 mg/m3	N.E.	15 mg/m3	N.E.	N.A.
Ethyl benzene	20 ppm	N.E.	435 mg/m3 100 ppm	N.E.	N.A.
Methyl ethyl ketone	200 ppm	300 ppm	590 mg/m3 200 ppm	N.E.	N.A.
Propylene glycol monomethylether	100 ppm	150 ppm	N.E.	N.E.	N.A.
Carbon black	3 mg/m3	N.E.	3.5 mg/m3	N.E.	N.A.
Ethyl alcohol	N.E.	1,000 ppm	1,900 mg/m3 1,000 ppm	N.E.	N.A.

N.A. - Not Applicable, N.E. - Not Established, S - Skin Designation

Engineering controls: Sufficient ventilation in pattern and volume should be provided in order to maintain air contaminant levels below recommended exposure limits. Caution: Solvent vapors are heavier than air and collect in lower levels of the work area. Sufficient ventilation (using explosion-proof equipment) should be provided to prevent flammable vapor/air mixtures from accumulating.

PERSONAL PROTECTION MEASURES/EQUIPMENT:

RESPIRATORY PROTECTION: Use a NIOSH approved chemical/mechanical filter respirator designed to remove a combination of particulates and organic vapor if occupational limits are exceeded. For emergency situations, confined space use, or other conditions where exposure limits may be greatly exceeded, use an approved air-supplied respirator. Observe OSHA regulations (29CFR 1910.134) for respirator use.

SKIN PROTECTION: Use neoprene, nitrile, or rubber gloves to prevent skin contact.

EYE PROTECTION: Use safety eyewear including safety glasses with side shields and chemical goggles where splashing may occur.

OTHER PROTECTIVE EQUIPMENT: Use disposable or impervious clothing if work clothing contamination is likely. Remove and wash contaminated clothing before reuse.

HYGIENIC PRACTICES: Wash hands before eating, smoking, or using toilet facility. Do not smoke in any chemical handling or storage area. Food or beverages should not be consumed anywhere this product is handled or stored. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Typical values, not to be used for specification purposes.

ODOR:	Solvent	VAPOR PRESSURE:	N.D.
APPEARANCE:	Gray	VAPOR DENSITY:	Heavier than Air
PHYSICAL STATE:	Liquid	LOWER EXPLOSIVE LIMIT:	1 %(V)
FLASH POINT:	57 °F, 14 °C Setaflash	UPPER EXPLOSIVE LIMIT:	19 %(V)
	Closed Cup		
BOILING RANGE:	80 - 141 °C	EVAPORATION RATE:	Faster than n-butyl-acetate.
AUTOIGNITION TEMPERATURE:	N.D.	DENSITY:	0.94 g/cm ³ - 7.85 lb/gal
DECOMPOSITION TEMPERATURE:	N.D.	VISCOSITY, DYNAMIC:	≥85 mPa.s @ 25 °C
ODOR THRESHOLD:	N.D.	VISCOSITY, KINEMATIC:	≥90 mm ² /s @ 25 °C
SOLUBILITY IN H₂O:	Insoluble	VOLATILE BY WEIGHT:	75.42 %
pH:	N.A.	VOLATILE BY VOLUME:	87.16 %
FREEZE POINT:	N.D.	VOC CALCULATED:	5.87 lb/gal, 703 g/l
COEFFICIENT OF WATER/OIL DISTRIBUTION:	N.D.	METHOD 24:	6.06 lb/gallon

LEGEND: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

10. STABILITY AND REACTIVITY

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur under normal conditions.

STABILITY: Product is stable under normal storage conditions.

CONDITIONS TO AVOID: High temperatures. Sources of ignition.

INCOMPATIBILITY: Strong oxidizers, acids, bases, water.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon dioxide, carbon monoxide, chlorine, hydrogen chloride, Phosgene

11. TOXICOLOGICAL INFORMATION

EXPOSURE PATH: Refer to section 2 of this SDS.

SYMPTOMS: Refer to section 2 of this SDS.

TOXICITY MEASURES:

Chemical Name	LD50/LC50
Methyl isobutyl ketone	Oral LD50: Rat 2,080 mg/kg Dermal LD50: Rabbit 3,000 mg/kg Inhalation LC50: Rat 8.2 mg/l /4 h
Xylene	Oral LD50: Rat 3,500 mg/kg Dermal LD50: Rabbit > 1,700 mg/kg Dermal LD50: Rabbit > 4,350 mg/kg Inhalation LC50: Rat 29.08 mg/l /4 h
Titanium dioxide	Oral LD50: Rat > 10,000 mg/kg GHS LC50 (vapour): rat 55 mg/l /
Ethyl benzene	Oral LD50: Rat 3,500 mg/kg Dermal LD50: Rabbit 15,400 mg/kg Inhalation LC50: Rat 17.2 mg/l /4 h
Methyl ethyl ketone	Oral LD50: Rat 2,737 mg/kg Oral LD50: Rat 2,483 mg/kg Dermal LD50: Rabbit 6,480 mg/kg

	Dermal LD50: Rabbit 5,000 mg/kg Inhalation LC50: Rat 11700 ppm/4 h
Propylene glycol monomethylether	Oral LD50: Rat 5,000 mg/kg Dermal LD50: Rabbit 13 g/kg GHS LC50 (vapour): rat 11 mg/l /4 h GHS LC50 (dust and mist): rat 1.5 mg/l /4 h
Carbon black	Oral LD50: Rat > 15,400 mg/kg Dermal LD50: Rabbit > 3 g/kg GHS LC50 (vapour): rat 55 mg/l /4 h
Ethyl alcohol	Oral LD50: Rat 7,060 mg/kg Inhalation LC50: Rat 124.7 mg/l /4 h

Germ cell mutagenicity: Category 1B - May cause genetic defects.

Components contributing to classification: Phenol. Ethyl alcohol.

Carcinogenicity: Category 2 - Suspected of causing cancer.

Components contributing to classification: Methyl isobutyl ketone. Titanium dioxide. Ethyl benzene. Carbon black.

Reproductive toxicity: Category 2 - Suspected of damaging fertility or the unborn child. May cause harm to breast-fed children.

Components contributing to classification: Xylene. Ethyl benzene. Zinc compound. Phenol. Ethyl alcohol. Toluene.

12. ECOLOGICAL INFORMATION

ECOTOXICITY:

Chemical Name	Ecotoxicity
Methyl isobutyl ketone	<u>Fish:</u> Pimephales promelas 496 - 514 mg/196 h flow-through <u>Invertebrates:</u> Daphnia magna 170 mg/148 h <u>Plants:</u> Pseudokirchneriella subcapitata 400 mg/196 h
Xylene	<u>Fish:</u> Pimephales promelas 13.4 mg/196 h flow-through Oncorhynchus mykiss 2.661 - 4.093 mg/196 h Static Oncorhynchus mykiss 13.5 - 17.3 mg/196 h Lepomis macrochirus 13.1 - 16.5 mg/196 h flow-through Lepomis macrochirus 19 mg/196 h Lepomis macrochirus 7.711 - 9.591 mg/196 h Static Pimephales promelas 23.53 - 29.97 mg/196 h Static Cyprinus carpio 780 mg/196 h semi-static Cyprinus carpio > 780 mg/196 h Poecilia reticulata 30.26 - 40.75 mg/196 h Static <u>Invertebrates:</u> water flea 3.82 mg/148 h Gammarus lacustris 0.6 mg/148 h
Titanium dioxide	N.D.
Ethyl benzene	<u>Fish:</u> Oncorhynchus mykiss 11.0 - 18.0 mg/196 h Static Oncorhynchus mykiss 4.2 mg/196 h semi-static Pimephales promelas 7.55 - 11 mg/196 h flow-through Lepomis macrochirus 32 mg/196 h Static Pimephales promelas 9.1 - 15.6 mg/196 h Static Poecilia reticulata 9.6 mg/196 h Static <u>Invertebrates:</u> Daphnia magna 1.8 - 2.4 mg/148 h <u>Plants:</u> Pseudokirchneriella subcapitata 4.6 mg/172 h Pseudokirchneriella subcapitata > 438 mg/196 h Pseudokirchneriella subcapitata 2.6 - 11.3 mg/172 h Static Pseudokirchneriella subcapitata 1.7 - 7.6 mg/196 h Static
Methyl ethyl ketone	<u>Fish:</u> Pimephales promelas 3,130 - 3,320 mg/196 h flow-through <u>Invertebrates:</u> Daphnia magna > 520 mg/148 h Daphnia magna 5,091 mg/148 h Daphnia magna 4,025 - 6,440 mg/148 h Static
Propylene glycol monomethylether	<u>Fish:</u> Pimephales promelas 20.8 g/196 h Static <u>Invertebrates:</u> Daphnia magna 23,300 mg/148 h
Carbon black	N.D.

Ethyl alcohol	<u>Fish:</u> Pimephales promelas > 100 mg/196 h Static Pimephales promelas 13,400 - 15,100 mg/196 h flow-through <u>Invertebrates:</u> Daphnia magna 9,268 - 14,221 mg/148 h Daphnia magna 2 mg/148 h Static
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PERSISTENCE AND DEGRADABILITY: Not determined for this product.

BIOACCUMULATIVE: Not determined for this product.

MOBILITY IN SOIL: Not determined for this product.

OTHER ADVERSE EFFECTS: Not determined for this product.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose of contents/container in accordance with waste/disposal laws and regulations of your country or particular locality. Disposal should be done in accordance with Federal (40CFR Part 261), state and local environmental control regulations. If waste is determined to be hazardous, use licensed hazardous waste transporter and disposal facility.

14. TRANSPORT INFORMATION

US DOT Road

DOT Proper Shipping Name: Adhesives
DOT Hazard Class: 3
SECONDARY HAZARD: None
DOT UN/NA Number: 1133
Packing Group: II
Emergency Response Guide Number: 128

IATA Cargo

PROPER SHIPPING NAME: Adhesives
DOT Hazard Class: 3
HAZARD CLASS: None
UN-NUMBER: 1133
PACKING GROUP: II
EMS: 3L

IMDG

PROPER SHIPPING NAME: Adhesives
DOT Hazard Class: 3
HAZARD CLASS: None
UN-NUMBER: 1133
PACKING GROUP: II
EMS: F-E

The listed transportation classification applies to US DOT Road, IATA Cargo, and IMDG non-bulk shipments. It does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors. For the most accurate shipping information, refer to your transportation/compliance department.

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: AS FOLLOWS:

SARA SECTION 313

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372.:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Weight % Less Than</u>
Methyl isobutyl ketone	108-10-1	60.0 %

Xylene	1330-20-7	15.0 %
Ethyl benzene	100-41-4	5.0 %

TOXIC SUBSTANCES CONTROL ACT:

INVENTORY STATUS

The chemical substances in this product are on the TSCA Section 8 Inventory.

EXPORT NOTIFICATION

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

NONE

16. OTHER INFORMATION

Under HazCom 2012 it is optional to continue using the HMIS rating system. It is important to ensure employees have been trained to recognize the different numeric ratings associated with the HazCom 2012 and HMIS schemes.

HMIS RATINGS - HEALTH: 2* FLAMMABILITY: 3 PHYSICAL HAZARD: 0

* - Indicates a chronic hazard; see Section 2

Revision: New GHS SDS Format

Effective Date: 03/30/2015

DISCLAIMER

The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations.

SAFETY DATA SHEET

MEK/SW

Section 1. Identification

Product name : Methyl Ethyl Ketone
 Product code : MEK/SW
 Other means of identification : Not available.
 Product type : Liquid.
Relevant identified uses of the substance or mixture and uses advised against
 Not applicable.

Manufacturer : THE SHERWIN-WILLIAMS COMPANY
 101 Prospect Avenue N.W.
 Cleveland, OH 44115

Emergency telephone number of the company : (216) 566-2917
 Product Information Telephone Number : Not available.
 Regulatory Information Telephone Number : (216) 566-2902
 Transportation Emergency Telephone Number : (800) 424-9300

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
 Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 2
 SKIN CORROSION/IRRITATION - Category 2
 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation and Narcotic effects) - Category 3
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

GHS label elements

Hazard pictograms :



Signal word : Danger
 Hazard statements : Highly flammable liquid and vapor.
 Causes serious eye irritation.
 Causes skin irritation.
 May cause respiratory irritation.
 May cause drowsiness and dizziness.
 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Section 2. Hazards identification

Prevention	: Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash hands thoroughly after handling.
Response	: Get medical attention if you feel unwell. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
Storage	: Store locked up. Store in a well-ventilated place. Keep cool.
Disposal	Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. FOR PROFESSIONAL USE ONLY. Please refer to the SDS for additional information. Do not transfer contents to other containers for storage.
Hazards not otherwise classified	: None known.

Section 3. Composition/information on ingredients

Substance/mixture	: Substance
Other means of identification	: Not available.

CAS number/other identifiers

Ingredient name	% by weight	CAS number
Methyl Ethyl Ketone	100.0	78-93-3

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Section 4. First aid measures

- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Highly flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Methyl Ethyl Ketone	ACGIH TLV (United States, 4/2014). TWA: 200 ppm 8 hours. TWA: 590 mg/m ³ 8 hours. STEL: 300 ppm 15 minutes. STEL: 885 mg/m ³ 15 minutes. NIOSH REL (United States, 10/2013). TWA: 200 ppm 10 hours. TWA: 590 mg/m ³ 10 hours. STEL: 300 ppm 15 minutes. STEL: 885 mg/m ³ 15 minutes. OSHA PEL (United States, 2/2013). TWA: 200 ppm 8 hours. TWA: 590 mg/m ³ 8 hours.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Section 8. Exposure controls/personal protection

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : 78°C (172.4°F)
- Flash point** : Closed cup: -8°C (17.6°F) [Pensky-Martens Closed Cup]
- Evaporation rate** : 5.6 (butyl acetate = 1)
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Lower: 1.8%
Upper: 10%
- Vapor pressure** : 1.6 kPa (12.079 mm Hg) [at 20°C]
- Vapor density** : 2.48 [Air = 1]
- Relative density** : 0.8
- Solubility** :
- Partition coefficient: n-octanol/water** :
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.

Section 9. Physical and chemical properties

Viscosity : Kinematic (room temperature): >0.205 cm²/s (>20.5 cSt)
Kinematic (40°C (104°F)): >0.205 cm²/s (>20.5 cSt)

Molecular weight : Not applicable.

Aerosol product

Heat of combustion : 0.0000309 kJ/g

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Methyl Ethyl Ketone	LD50 Dermal	Rabbit	6480 mg/kg	-
	LD50 Oral	Rat	2737 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Methyl Ethyl Ketone	Skin - Mild irritant	Rabbit	-	24 hours 14 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
Methyl Ethyl Ketone	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Methyl Ethyl Ketone	Category 2	Not determined	Not determined

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

Not available.

- General** : May cause damage to organs through prolonged or repeated exposure.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	2737 mg/kg

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Methyl Ethyl Ketone	Acute EC50 >500000 µg/l Marine water	Algae - Skeletonema costatum	96 hours
	Acute EC50 5091000 µg/l Fresh water	Daphnia - Daphnia magna - Larvae	48 hours
	Acute LC50 3220000 µg/l Fresh water	Fish - Pimephales promelas	96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Methyl Ethyl Ketone	-	-	Readily

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact

Section 13. Disposal considerations

with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	UN1193	UN1193	UN1193	UN1193	UN1193
UN proper shipping name	Methyl Ethyl Ketone	Methyl Ethyl Ketone	Methyl Ethyl Ketone	Methyl Ethyl Ketone	Methyl Ethyl Ketone
Transport hazard class(es)	3 	3 	3 	3 	3 
Packing group	II	II	II	II	II
Environmental hazards	No.	No.	No.	No.	No.
Additional information	<u>Special provisions</u> Not Applicable	<u>Special provisions</u> Not Applicable	<u>Special provisions</u> (ERG#127)	<u>Special provisions</u> Not Applicable	<u>Emergency schedules (EmS)</u> F-E, S-D

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

Proper shipping name : Not available.
Ship type : Not available.
Pollution category : Not available.

Section 15. Regulatory information

U.S. Federal regulations :
State regulations

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	2
Flammability	3
Physical hazards	0

Section 16. Other information

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.



Safety Data Sheet

According to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA GHS
Revision Date: 06.01.2015

Section 1 – Identification

1.1 Product Identifier:

Trade Name: Vblast Brown Fused Aluminum Oxide

1.2 Relevant Identified Uses of The Substance or Mixture and Uses Advised Against

Identified Use(s) Consult the Supplier

1.3 Details of the Supplier of the Safety Data Sheet

Manufacturer/Supplier

GMA Industries, Inc

38127 Ecorse Rd

Romulus, MI 48174

Phone: (734) 595-7300

1.4 Emergency Telephone Number:

ChemTel INC (800) 255-3924

Section 2 – Hazards Identification

2.1 Classification on the substance or mixture

Classification according to Regulation (EC) No 1272/2008

The following Hazard Statements are applicable only according to OSHA regulations within the United States. These Statements are not applicable for the CLP regulation (1272/2008/EC) in the EU: H351



Health Hazard

Carc. 2 H351 Suspected of causing cancer

Classification according to Directive 67/548/EEC or Directive 199/45/EC Not applicable

Information concerning particular hazards for human and environment:

The product doesn't have to be labeled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification System:

The classification is according to the latest editions of the EU-list, and extended by company and literature data.

The classification is in accordance with the latest editions of international substances list, and is supplemented by information from technical literature and by information provided by the company

2.2 Label Elements

Labeling According to Regulation (EC) No 1272/2008 (CLP)

The substance is classified and labeled according to the Globally Harmonized System within the United States (GHS)

This product doesn't have a classification according to the CLP regulation

This product is classified and labeled according to the CLP regulation



Hazard

Not applicable within the EU;

Pictograms(S)

applicable only for North America

Signal **WARNING**

Word(s)

Not applicable within the EU;

applicable only for North America

Hazard-determining components of labeling:

Titanium Dioxide

Hazard Statements

The following Hazard Statements are applicable only according to OSHA regulations within the United States. These statements are not applicable for the CLP regulation (1272/2008/EC) in the EU: H351. H351 Suspected of causing cancer.

Precautionary Statements

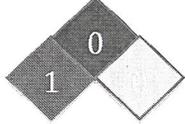
Applicable only within the United States (USA)

- P281 Use personal protective equipment as required
P202 Do not handle until all safety precautions have been read and understood
P308+P313 IF exposed or concerned: Get medical advice/attention
P501 Dispose of contents/container in accordance with local/regional/national/international regulations

Hazard Description

WHMIS-symbols: Not Hazardous under WHMIS

NFPA Rating: (scale 0-4)



Health = 1
Fire = 0
Reactivity = 0

HMIS-ratings: (scale 0-4)

HEALTH	1
FIRE	0
REACTIVITY	0

Health = 1
Fire = 0
Reactivity = 0

HMIS Long Term Health Hazard Substances 13463-67-7 Titanium Dioxide

2.3 Other Hazards

Results of PBT and vPvB Assessment

PBT: Not Applicable
vPvB: Not Applicable

Section 3 – Composition/Information on Ingredients

3.2 Mixtures

Descriptions: Mixture of substances listed below with nonhazardous additions

Hazardous Ingredient(s)	% W/W	CAS No.	EC No.	REACH Registration No	Hazard Pictogram(s) and Hazard Statement(s)
Aluminum Oxide	>90	1344-38-1	215-691-6	NA	NONE Substance with a Community workplace exposure limit
Silicon Fused	<5	7631-86-9	231-545-4	NA	NONE Substance with a Community workplace exposure limit
Titanium Dioxide	<5	13463-67-7	236-675-5	NA	NONE Substance with a Community workplace exposure limit
Iron Oxide	<5	1309-37-1	215-168-2	NA	NONE Substance with a Community workplace exposure limit

Dangerous Components (Alternative Classifications):

Hazardous Ingredient(s)	% W/W	CAS No.	EC No.	REACH Registration No	Hazard Pictogram(s) and Hazard Statement(s)
Titanium Dioxide	<5	13463-67-7	236-675-5	NA	 3.6/2 H351

3.3 Additional Information: For the wording of the listed risk phrases refer to section 16

Section 4 – First Aid Measures

4.1 Description of first aid measures

General Information: No Special measures required

After Inhalation:

Supply fresh air; consult doctor in case of complaints
Provide oxygen treatment if affected person has difficulty breathing

After skin contact:

Immediately remove contact lenses if possible

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing:

Rinse out mouth and then drink plenty of water

Do Not induce vomiting; call for medical help immediately

4.2 Most important symptoms and effects, both acute and delayed

Coughing

Breathing difficulty

Gastric or intestinal disorders

Hazards Danger of impaired breathing

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available

Section 5 – Firefighting Measures

5.1 Extinguishing Media

Suitable Extinguishing Agents: Use fire extinguishing methods suitable for surrounding conditions

For safety reasons unsuitable extinguishing agents: NONE

5.2 Special hazards arising from the substance or mixture: No further relevant information available

5.3 Advice for firefighters: Wear self-contained respiratory protective device; Wear fully protective suit

Additional Information: No Further relevant information available.

Section 6 – Accident Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Use respiratory protective device against the effects of fumes/dust/aerosol

For large spills, wear protective clothing

Avoid formation of dust

Ensure adequate ventilation

6.2 Environment precautions: No special measures required

6.3 Methods and material for containment and cleaning up:

Pick up mechanically

Send for recovery or disposal in suitable receptacles

Dispose contaminated material as waste according to item 13

6.4 Reference to other sections

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment

See Section 13 for disposal information

Section 7 – Handling and Storage

7.1 Precautions for Safe Handling

Prevent formation of dust

Any unavoidable deposit of dust must be regularly removed.

Do Not dry clean dust covered objects and floors. Wash thoroughly with plenty of water.

Use only in well ventilated areas

Avoid breathing dust

Information about fire and explosion protection: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and receptacles: No special requirements

Information about storage in one common storage facility:

Store away from foodstuffs. Store away from oxidizing agents

Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

Store receptacle in a well ventilated area.

This product is hygroscopic.

7.3 Specific end use(s): No further relevant information available

Section 8 – Exposure Controls/Personal Protections

8.1 Control Parameters

Ingredients with limit values that require monitoring at the workplace:

Additional Information: The lists valid during the making were used as basis.

Aluminum Oxide	1344-28-1	PEL (USA)	Long-term value: 15*, 15** mg/m ³ *Total dust, ** Respirable fraction
		REL (USA)	Long-term value: 10* 5*mg/m ³ As Al* Total Dust **Respirable/pro powd/welding
		TLV (USA)	Long-term value: 1* mg/m ³ As AL; *as reparable fraction
		EL (CANADA)	Long-term value: 10 mg/m ³ respirable, as Al
		EV (CANADA)	Long-term value: 10 mg/m ³ Total dust
Silicon Fused	60678-86-0	PEL (USA)	See Quartz listing
		TLV (USA)	TLV withdrawn
		EV (CANADA)	Long-term value: 10 mg/m ³ respirable
Titanium Dioxide	13463-67-7	PEL (USA)	Long-term value: 15* mg/m ³ *Total dust
		REL (USA)	See Pocket Guide App. A
		TLV (USA)	Long-term value: 10 mg/m ³ withdrawn from NIC
		EL (CANADA)	Long-term value: 10* 3** mg/m ³ *total dust; **respirable fraction; IARC 2B
		EV (CANADA)	Long-term value: 10 mg/m ³ Total dust
Iron Oxide	1309-37-1	PEL (USA)	Long-term value: 10* 15** 5*** mg/m ³ * Fume; Rouge: ** Total Dust, ***respirable
		REL (USA)	Long-term value: 5mg/m ³ Dust & fume, as Fe
		TLV (USA)	Long-term value: 5* mg/m ³ *as respirable fraction
		EL (CANADA)	Short-term value: 10** mg/m ³ Long-term value: 5* 10*** 3**** mg/m ³ *dust & fume **fume; Rouge: ***total dust ****resp.
		EV (CANADA)	Long-term value: 5* 10** mg/m ³ *respirable, including Rouge; **total dust

8.2 Exposure Controls

Personal Protective Equipment

General Protective and Hygienic Measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid close or long-term contact with the skin.

Do not inhale dust/smoke/mist.

Respiratory Protection:

Suitable respiratory protective device recommended.

Use suitable respiratory protective device in case of insufficient ventilation.

For spills, respiratory protection may be advisable.
Particulate mask should filter at least 99% of airborne particles.

Protection of Hands:

Wear gloves for the protection against mechanical hazards according to NIOSH or EN 388.
Gloves are advised for repeated or prolonged contact.
The glove material has to be impermeable and resistant to the product/the substance/the preparation.

Material of Gloves:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Eye Protection:



Safety Glasses

Body Protection:

Not required under normal conditions of use.
Protection may be required for spills.

Limitation and supervision of exposure into the environment: No special requirements.

Risk management measures No special requirements.

Section 9 – Physical and Chemical Properties

9.1 Information on Basic Physical And Chemical Properties

Appearance:	Solid Granular Product	Color:	Brown
Odor:	Odorless	Odor Threshold:	Not Determined
Melting Point (°C)/		Boiling Point/	
Freezing Point (°C):	Not Available	Boiling Range (°C):	Not Available
Flash Point (°C):	No Data	Explosive Limit Ranges:	Not Available
Auto Ignition Temp (°C):	Not Available	Decomposition Temp (°C):	Not Determine
Explosive Properties:	None	Oxidizing Properties:	Not Available
Flammability (Solid, Gas):	Not Available	Ph(value):	Not Available
Evaporation Rate:	N/A	Vapor Pressure (mm Hg):	Not Available
Vapor Density (Air=1):	N/A	Density (g/ml):	Not Available
Solubility (Water):	Insoluble	Solubility (Other):	Not Available
Partition Coefficient (N-Octanol/water):	Not available	Viscosity (mPa.s)	Not Available

9.2 Other Information: No further relevant information available.

Section 10 – Stability and Reactivity

10.1 Reactivity

10.2 Chemical Stability

Thermal decomposition/conditions to be avoided: No decomposition if used and stored according to specifications

10.3 Possibility of Hazardous Reactions

Reacts with strong acids.

Reacts with oxidizing agents.

Reacts with strong alkali.

10.4 Conditions to avoid: No further relevant information available.

10.5 Incompatible materials: No further relevant information available.

10.6 Hazardous Decomposition Products: Toxic metal oxide smoke.

Section 11 – Toxicological Information

11.1 Information on Toxicological Effects

Acute Toxicity:

Primary irritant Effect:

On the Skin: No irritant effect.

On the Eye: Slight irritant effect on eyes.

Sensitisation: No sensitising effects known.

Repeated Dose Toxicity: May cause damage to organs through prolonged or repeated exposure.

CMR Effects (carcinogenicity, mutagenicity and toxicity for reproduction): Based on IARC classifications and not the CLP classification. Carc. 2

Section 12 – Ecological Information

12.1 Toxicity

Aquatic Toxicity: General not hazardous for water

12.2 Persistence and Degradability

Inorganic product is not eliminable from water by means of biological cleaning processes.

12.3 Bioaccumulative Potential: Does Not accumulate in organisms.

12.4 Mobility in Soil: No further relevant information available.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other Adverse Effects: No further relevant information available.

Section 13 – Disposal Considerations

13.1 Waste Treatment Methods

Recommendation

Smaller quantities can be disposed of with household waste.

Can be reused after reprocessing.

Contact waste processors for recycling information.

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.

Uncleaned Packaging:

Recommendation: Disposal must be made according to official regulations

Section 14 – Transportation Information

14.1 UN-Number

DOT,ADRADN,IMDG,IATA

Not Regulated

14.2 UN Proper Shipping Name

DOT,ADR,ADN,IMDG,IATA

Not Regulated

14.3 Transport hazard class(es)

DOT,ADR,ADN,IMDG,IATA

Not Regulated

14.4 Packing Group

DOT,ADR,IMDG,IATA

Not Regulated

14.5 Environmental Hazards:

Marine Pollutant:

No

14.6 Special Precautions for User

Not Applicable

14.7 Transport in Bilk According to Annex II of MARPOL73/78 and the IBC Code:

Not Applicable

UN "Model Regulation"

Section 15 – Regulatory Information

15.1 Safety, Health and Environmental Regulations/Legislation specific for the Substance or Mixture

United States (USA)

SARA

Section 355 (extremely hazardous substances): None of the ingredients are listed.

Section 313 (specific toxic chemical listing): None of the ingredients are listed,

TSCA (Toxic Substances Control Act): All ingredients are listed.

Proposition 65 (California):

Chemicals known to cause cancer: 13463-67-7 Titanium Dioxide

Chemicals known to cause reproduction toxicity for females: None of the ingredients are listed

Chemicals known to cause reproduction toxicity for males: None of the ingredients are listed

Chemicals known to cause developmental toxicity: None of the ingredients are listed

Carcinogenic Categories

EPA (Environmental Protection Agency): None of the ingredients are listed

IARC (International Agency for Research on Cancer): 13463-67-7 Titanium Dioxide

2B

TLV (Threshold Limit Value established by ACGIH): 1344-28-1 Aluminum Oxide 13463-67-7 Titanium Dioxide

A4

NIOSH-CA (National Institute of Occupational Safety and Health): 13463-67-7 Titanium Dioxide

Canada

Canadian Domestic Substances List (DSL): All ingredients are listed.

Canadian Ingredient Disclosure list (limit 0.1%): None of the ingredients are listed.

Canadian Ingredient Disclosure list (limit 1%):

1344-28-1 Aluminum Oxide

7631-86-9 Silicon dioxide, chemically prepared

Other regulations, limitations and prohibitive regulations

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

Substances of very high concern (SVHC) according to REACH, Article 57: None of the ingredients are listed

15.2 Chemical Safety Assessment: A Chemical Safety Assessment has not been carried out.

Section 16 – Other Information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Additional Information:

- The accumulation of airborne dust particles may lead to health and safety risks in some cases. The uses of good industrial practices with mitigate this risk.
- The health risks from inhalation of dust particles vary; this is due to particle concentration, exposure length, number of exposures and type of particles inhaled. Please read Section 2,4,6,7 and 8 of the SDS to understand these potential risks. Wear personal protective equipment and follow storage and handling procedures to maintain a safe workplace.
- In rare instances, combustible dusts may represent a potential explosion hazard when airborne. This hazard is often associated with organic dust such as foodstuffs and coal, but may also occur with mineral products.

Relevant Phrases

H351 Suspected of causing cancer.

Abbreviations and Acronyms:

ADR: Accord europeen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labeling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstract Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Material Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Sources:

ChemTel Inc,

1305 North Florida Avenue

**Attachment J
EMISSION POINTS DATA SUMMARY SHEET**

Table 1: Emissions Data

Emission Point ID No. (Must match Emission Units Table & Plot Plan)	Emission Point Type ¹	Emission Unit Vented Through This Point (Must match Emission Units Table & Plot Plan)		Air Pollution Control Device (Must match Emission Units Table & Plot Plan)		Vent Time for Emission Unit (chemical processes only)		All Regulated Pollutants - Chemical Name/CAS ³ (Specify VOCs & HAPS)	Maximum Potential Uncontrolled Emissions ⁴		Maximum Potential Controlled Emissions ⁵		Emission Form or Phase (At exit conditions, Solid, Liquid or Gas/Vapor)	Est. Method Used ⁶	Emission Concentration ⁷ (ppmv or mg/m ³)
		ID No.	Source	ID No.	Device Type	Short Term ²	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr			
1E	fan	1S	paint booth	1C	paint filter	-	-	VOC PM PM10 Total HAPs	33.4 40.75 20	19.5 0.52 0.25	33.4 4.1 2	19.5 0.052 0.025	gas solid solid	MB MB MB	- - -
1E (Cont)	"	"	"	"	"	-	-	MIBK xylene Ethylbenzene	23.5 20.4 6.3	6 7.58 1.53	23.5 20.4 6.3	6 7.58 1.53	gas gas gas	MB MB MB	- - -
2E	vent	2S	abrasive blast area	-	-	-	-	PM PM10	13.5 6.4	1.35 0.65	13.5 6.4	1.35 0.65	solid solid	AP-42 AP-42	- -

The EMISSION POINTS DATA SUMMARY SHEET provides a summation of emissions by emission unit. Note that uncaptured process emission unit emissions are not typically considered to be fugitive and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET. Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions). Please complete the FUGITIVE EMISSIONS DATA SUMMARY SHEET for fugitive emission activities.

- Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.
- Indicate by "C" if venting is continuous. Otherwise, specify the average short-term venting rate with units, for intermittent venting (ie., 15 min/hr). Indicate as many rates as needed to clarify frequency of venting (e.g., 5 min/day, 2 days/wk).
- List all regulated air pollutants. Specify VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. LIST Acids, CO, CS₂, VOCs, H₂S, Inorganics, Lead, Organics, O₃, NO, NO₂, SO₂, SO₃, all applicable Greenhouse Gases (including CO₂ and methane), etc. DO NOT LIST H₂, H₂O, N₂, O₂, and Noble Gases.
- Give maximum potential emission rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).
- Give maximum potential emission rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).
- Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).
- Provide for all pollutant emissions. Typically, the units of parts per million by volume (ppmv) are used. If the emission is a mineral acid (sulfuric, nitric, hydrochloric or phosphoric) use units of milligram per dry cubic meter (mg/m³) at standard conditions (68 °F and 29.92 inches Hg) (see 45CSR7). If the pollutant is SO₂, use units of ppmv (See 45CSR10).

**Attachment L
EMISSIONS UNIT DATA SHEET
GENERAL**

To be used for affected sources other than asphalt plants, foundries, incinerators, indirect heat exchangers, and quarries.

Identification Number (as assigned on *Equipment List Form*): 15

1. Name or type and model of proposed affected source:

paint area

2. On a separate sheet(s), furnish a sketch(es) of this affected source. If a modification is to be made to this source, clearly indicated the change(s). Provide a narrative description of all features of the affected source which may affect the production of air pollutants.

3. Name(s) and maximum amount of proposed process material(s) charged per hour:

5 tons

4. Name(s) and maximum amount of proposed material(s) produced per hour:

5 tons

5. Give chemical reactions, if applicable, that will be involved in the generation of air pollutants:

N/A

* The identification number which appears here must correspond to the air pollution control device identification number appearing on the *List Form*.

6. Combustion Data (if applicable):		
(a) Type and amount in appropriate units of fuel(s) to be burned:		
N/A		
(b) Chemical analysis of proposed fuel(s), excluding coal, including maximum percent sulfur and ash:		
N/A		
(c) Theoretical combustion air requirement (ACF/unit of fuel):		
@	N/A	°F and psia.
(d) Percent excess air:		
N/A		
(e) Type and BTU/hr of burners and all other firing equipment planned to be used:		
N/A		
(f) If coal is proposed as a source of fuel, identify supplier and seams and give sizing of the coal as it will be fired:		
N/A		
(g) Proposed maximum design heat input:		
N/A		× 10 ⁶ BTU/hr.
7. Projected operating schedule:		
Hours/Day	Days/Week	Weeks/Year
24	7	52

8. Projected amount of pollutants that would be emitted from this affected source if no control devices were used:

@	°F and	psia		
a. NO _x			lb/hr	grains/ACF
b. SO ₂			lb/hr	grains/ACF
c. CO			lb/hr	grains/ACF
d. PM ₁₀	20		lb/hr	0.25 ^{TP4} grains/ACF
e. Hydrocarbons			lb/hr	grains/ACF
f. VOCs	33.4		lb/hr	19.5 ^{TP4} grains/ACF
g. Pb			lb/hr	grains/ACF
h. Specify other(s)				
PM	40.75		lb/hr	0.52 ^{TP4} grains/ACF
total HAPS	30		PPH lb/hr	15.7 ^{TP4} grains/ACF
MIBK	23.5			6 ^{TP4} grains/ACF
xylene	20.4		lb/hr	7.58 grains/ACF
ethylbenzene	6.3		lb/hr	1.53 grains/ACF

NOTE: (1) An Air Pollution Control Device Sheet must be completed for any air pollution device(s) used to control emissions from this affected source.

(2) Complete the Emission Points Data Sheet.

9. Proposed Monitoring, Recordkeeping, Reporting, and Testing
Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

MONITORING

RECORDKEEPING

REPORTING

TESTING

MONITORING. PLEASE LIST AND DESCRIBE THE PROCESS PARAMETERS AND RANGES THAT ARE PROPOSED TO BE MONITORED IN ORDER TO DEMONSTRATE COMPLIANCE WITH THE OPERATION OF THIS PROCESS EQUIPMENT OPERATION/AIR POLLUTION CONTROL DEVICE.

RECORDKEEPING. PLEASE DESCRIBE THE PROPOSED RECORDKEEPING THAT WILL ACCOMPANY THE MONITORING.

REPORTING. PLEASE DESCRIBE THE PROPOSED FREQUENCY OF REPORTING OF THE RECORDKEEPING.

TESTING. PLEASE DESCRIBE ANY PROPOSED EMISSIONS TESTING FOR THIS PROCESS EQUIPMENT/AIR POLLUTION CONTROL DEVICE.

10. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty

N/A

**Attachment L
EMISSIONS UNIT DATA SHEET
GENERAL**

To be used for affected sources other than asphalt plants, foundries, incinerators, indirect heat exchangers, and quarries.

Identification Number (as assigned on *Equipment List Form*): 25

1. Name or type and model of proposed affected source: <p style="text-align: center;">abrasive blast area</p>
2. On a separate sheet(s), furnish a sketch(es) of this affected source. If a modification is to be made to this source, clearly indicated the change(s). Provide a narrative description of all features of the affected source which may affect the production of air pollutants.
3. Name(s) and maximum amount of proposed process material(s) charged per hour: <p style="text-align: center;">5 tons</p>
4. Name(s) and maximum amount of proposed material(s) produced per hour: <p style="text-align: center;">5 tons</p>
5. Give chemical reactions, if applicable, that will be involved in the generation of air pollutants: <p style="text-align: center;">N/A</p>

* The identification number which appears here must correspond to the air pollution control device identification number appearing on the *List Form*.

6. Combustion Data (if applicable):		
(a) Type and amount in appropriate units of fuel(s) to be burned:		
N/A		
(b) Chemical analysis of proposed fuel(s), excluding coal, including maximum percent sulfur and ash:		
N/A		
(c) Theoretical combustion air requirement (ACF/unit of fuel):		
@	N/A	°F and psia.
(d) Percent excess air:		
N/A		
(e) Type and BTU/hr of burners and all other firing equipment planned to be used:		
N/A		
(f) If coal is proposed as a source of fuel, identify supplier and seams and give sizing of the coal as it will be fired:		
N/A		
(g) Proposed maximum design heat input:		
N/A		× 10 ⁶ BTU/hr.
7. Projected operating schedule:		
Hours/Day	24	Days/Week
		7
		Weeks/Year
		52

8. Projected amount of pollutants that would be emitted from this affected source if no control devices were used:

@	°F and	psia	
a. NO _x			lb/hr grains/ACF
b. SO ₂			lb/hr grains/ACF
c. CO			lb/hr grains/ACF
d. PM ₁₀	6.4		lb/hr 0.65 grains/ACF
e. Hydrocarbons			lb/hr grains/ACF
f. VOCs			lb/hr grains/ACF
g. Pb			lb/hr grains/ACF
h. Specify other(s)			
PM	13.5		lb/hr 1.35 ^{TPY} grains/ACF
			lb/hr grains/ACF
			lb/hr grains/ACF
			lb/hr grains/ACF

NOTE: (1) An Air Pollution Control Device Sheet must be completed for any air pollution device(s) used to control emissions from this affected source.

(2) Complete the Emission Points Data Sheet.

9. Proposed Monitoring, Recordkeeping, Reporting, and Testing
Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

MONITORING

RECORDKEEPING

REPORTING

TESTING

MONITORING. PLEASE LIST AND DESCRIBE THE PROCESS PARAMETERS AND RANGES THAT ARE PROPOSED TO BE MONITORED IN ORDER TO DEMONSTRATE COMPLIANCE WITH THE OPERATION OF THIS PROCESS EQUIPMENT OPERATION/AIR POLLUTION CONTROL DEVICE.

RECORDKEEPING. PLEASE DESCRIBE THE PROPOSED RECORDKEEPING THAT WILL ACCOMPANY THE MONITORING.

REPORTING. PLEASE DESCRIBE THE PROPOSED FREQUENCY OF REPORTING OF THE RECORDKEEPING.

TESTING. PLEASE DESCRIBE ANY PROPOSED EMISSIONS TESTING FOR THIS PROCESS EQUIPMENT/AIR POLLUTION CONTROL DEVICE.

10. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty

N/A

QUESTIONS:

60 ft. Length of Room

60 ft. Width of Room

23 ft. Height of Room

4 min. Frequency of Air Change

Calculate W x L x H / Minutes

20700
CFM Fan(s) CFM Required

XTR™ 5 and XTR™ 7 Airless Spray Gun



Instructions/Parts

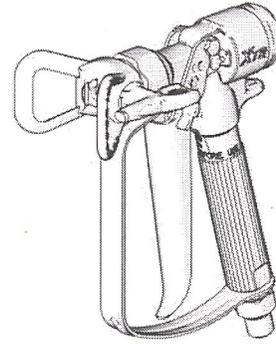
See Parts, beginning on page 8, for model numbers.

Maximum Working Pressure:

XTR 5: 5000 psi (35 MPa, 345 bar)

XTR 7: 7250 psi (50 MPa, 500 bar)

For use with protective coating materials



ii5045b

312145G

EN



IMPORTANT SAFETY INSTRUCTIONS.
Refer to your sprayer instruction manual for pressure relief, priming, and spraying instructions. Keep these instructions.

The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbols refer to procedure-specific risks. Refer back to these warnings. Additional product-specific warnings may be found throughout the body of this manual where applicable.

WARNING



SKIN INJECTION HAZARD

High-pressure fluid from gun, hose leaks, or ruptured components will pierce skin. This may look like just a cut, but it is a serious injury that can result in amputation. **Get immediate surgical treatment.**



- Do not point gun at anyone or at any part of the body.
- Do not put your hand over the spray tip.
- Do not stop or deflect leaks with your hand, body, glove, or rag.
- Do not spray without tip guard and trigger guard installed.
- Engage trigger lock when not spraying.
- Follow **Pressure Relief Procedure** in this manual, when you stop spraying and before cleaning, checking, or servicing equipment.



PRESSURIZED EQUIPMENT HAZARD

Fluid from the gun/dispense valve, leaks, or ruptured components can splash in the eyes or on skin and cause serious injury.

- Follow **Pressure Relief Procedure** in this manual, when you stop spraying and before cleaning, checking, or servicing equipment.
- Tighten all fluid connections before operating the equipment.
- Check hoses, tubes, and couplings daily. Replace worn or damaged parts immediately.

Technical Data

Maximum working pressure:

XTR 5	5000 psi (35 MPa, 345 bar)
XTR 7	7250 psi (50 MPa, 500 bar)
Fluid orifice	0.090 in. (2.3 mm)
Fluid inlet	1/4 npsm (m)
Max. fluid temperature	160°F (71°C)
Sound pressure	84.3 dB(A)*
Sound power	95.7 dB(A)*
Wetted parts	aluminum, stainless steel, acetal, polyethylene, nylon, polypropylene, carbide, polyurethane, solvent-resistant o-rings.

*Results are maximum readings taken at 6000 psi (41 MPa, 414 bar), with HD519 tip, using water. Sound power level was tested to ISO 9614-2.

**Attachment M
Air Pollution Control Device Sheet
(OTHER COLLECTORS)**

Control Device ID No. (must match Emission Units Table): **1C**

Equipment Information

1. Manufacturer: Model No.	2. Control Device Name: Paint Filter Type:
3. Provide diagram(s) of unit describing capture system with duct arrangement and size of duct, air volume, capacity, horsepower of movers. If applicable, state hood face velocity and hood collection efficiency.	
4. On a separate sheet(s) supply all data and calculations used in selecting or designing this collection device.	
5. Provide a scale diagram of the control device showing internal construction.	
6. Submit a schematic and diagram with dimensions and flow rates.	
7. Guaranteed minimum collection efficiency for each pollutant collected:	
8. Attached efficiency curve and/or other efficiency information.	
9. Design inlet volume:	10. Capacity:
SCFM	
11. Indicate the liquid flow rate and describe equipment provided to measure pressure drop and flow rate, if any.	
See attached	
12. Attach any additional data including auxiliary equipment and operation details to thoroughly evaluate the control equipment.	
13. Description of method of handling the collected material(s) for reuse or disposal.	

Gas Stream Characteristics

14. Are halogenated organics present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are particulates present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are metals present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
15. Inlet Emission stream parameters:	Maximum	Typical
Pressure (mmHg):		
Heat Content (BTU/scf):		
Oxygen Content (%):		
Moisture Content (%):		
Relative Humidity (%):		

Print

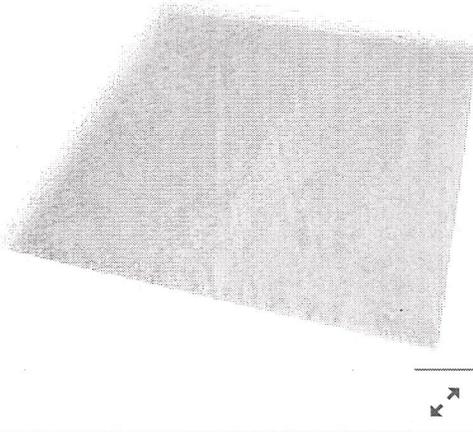
Email

View Product Family

AIR HANDLER



20x20x2, Paint Collector Filter Pad, 15 Grams Fiberglass, Package Quantity 50

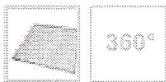


Price ⓘ
\$50.40 / pkg. of 50

- Deliver one time only
- Auto-Reorder Every 1 Month ⓘ

Add to Cart

+ Add to List



Confirm ZIP Code to determine availability.

Save

How can we improve our Product Images?

Compare

☆☆☆☆☆ Be the first to write a review

Item # **2W001** Mfr. Model # **2W001** UNSPSC # **40161524**
 Catalog Page # **3819** Shipping Weight **5.45 lbs.**

Country of Origin **Varies** | Country of Origin is subject to change.

Note: Product availability is real-time updated and adjusted continuously. The product will be reserved for you when you complete your order. More

Product Details

The Air Handler Fiberglass Overspray Media is thick and progressively layered (air-entering to air- leaving) to enhance filter efficiency and service life. Loosely woven construction allows paint to load evenly without face loading.

Technical Specs

Item	Paint Collector Filter Pad	Nominal Width	20"
Media	15 Grams Fiberglass	Nominal Depth	2"
Nominal Filter Size	20x20x2	Standards	EPA, NFPA #33, OSHA #1910.107
Nominal Height	20"		

How can we improve our Technical Specifications?

ATTACHMENT M

Compliance and Restrictions

View the Safety Data Sheet (SDS) for this item.

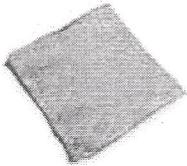
Documentation

Air Handler Specialty Filtration Guide

Alternate Products

Alternate Products may not be identical in style or function to original selection. Please compare below for more information.

Compare



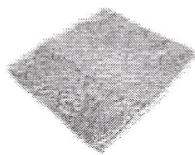
Item # 6W749

20x20x1, Paint Collector Filter Pad, High Capacity Paper, Package Quantity 30

AIR HANDLER

Price
\$60.65 / pkg. of 30

Compare



Item # 6W747

20x20x1, Paint Collector Filter Pad, Standard Capacity Paper, Package Quantity 50

AIR HANDLER

Price
\$68.85 / pkg. of 50

Alternate Search Terms

Filter Media Pads (144)

Fiberglass Filter Media (92)

Paint Filters (47)

Paint Collector Media (42)

Paint Pads (32)

Paint Air Filters (31)

Paint Collector Pads (23)

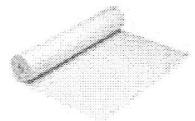
Related Products



Item # 6W754

Kraft Paper, 42 In W

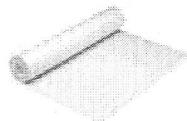
AIR HANDLER



Item # 6W756

Spray Booth Liner Paper, Tan

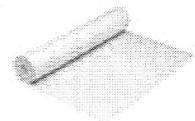
AIR HANDLER



Item # 6W753

Paper, Liner

AIR HANDLER



Item # 6W755

Kraft Paper, 60 In W

AIR HANDLER

Actual Emissions Estimate

Huntington Steel & Supply Co

Actual Hours of Total Operation
4992

Coating Operation (hours/year)
2500

	Coating/Stain/Solvent Description	Coating Usage (gal/yr) _{Act.}	Coating Usage (gal/yr) _{Max.}	VOC Content (lb/gal)		Emission Rate (ton/yr)
1	Chemlok 205	2500	0	6.06		7.575
2	Chemlok 220	2500	0	6.17		7.7125
3	Methyl Ethyl Ketone	1250	0	6.68		4.175
4			0			0
5			0			0
6			0			0
7			0			0
8			0			0
9			0			0
10			0			0
11			0			0
12			0			0
13			0			0
14			0			0
15			0			0
16			0			0
17			0			0
18			0			0
19			0			0
20			0			0
21			0			0
22			0			0
23			0			0
24			0			0
25			0			0
26			0			0
27			0			0
28			0			0
29			0			0
30			0			0

Total VOC Emissions	19.4625
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Total Avg Hrlly VOC Emissions	15.57
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Actual Emissions Estimate

Huntington Steel & Supply Co
0

Transfer Efficiency (%)
45

Settling Chamber Efficiency (%)
80

	Coating/Stain/Solvent Description	Density (lb/gal)	Coating Usage (gal/yr)	PM Content (lb/gal)		Emission Rate (ton/yr)
1	Chemlok 205	7.85	2500	1.79		0.246125
2	Chemlok 220	8.15	2500	1.98		0.27225
3	Methyl Ethyl Ketone	6.664	1250	-0.016		-0.0011
4	0		0	0		0
5	0		0	0		0
6	0		0	0		0
7	0		0	0		0
8	0		0	0		0
9	0		0	0		0
10	0		0	0		0
11	0		0	0		0
12	0		0	0		0
13	0		0	0		0
14	0		0	0		0
15	0		0	0		0
16	0		0	0		0
17	0		0	0		0
18	0		0	0		0
19	0		0	0		0
20	0		0	0		0
21	0		0	0		0
22	0		0	0		0
23	0		0	0		0
24	0		0	0		0
25	0		0	0		0
26	0		0	0		0
27	0		0	0		0
28	0		0	0		0
29	0		0	0		0
30	0		0	0		0

Total PM Emissions		0.517275
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Total Avg Hrly PM Emissions	0.41382
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Huntington Steel & Supply Co
0

Actual Emissions Estimate

Coating Operation (hours/year)
2500

	Coating/Stain/Solvent Description	Density (lb/gal)	HAP Constituent	% HAP Content	Emission Rate (ton/yr)
1	Chemlok 205	7.85	MIBK	60	5.8875
2	Chemlok 205	7.85	Xylene	15	1.471875
3	Chemlok 205	7.85	Ethylbenzene	5	0.490625
4	Chemlok 205	7.85	Toluene	1	0.098125
5	Chemlok 205	7.85	Formaldehyde	1	0.098125
6	Chemllok 220	8.15	Xylene	60	6.1125
7	Chemllok 220	8.15	Ethylbenzene	15	1.528125
8	Methyl Ethyl Ketone	6.664	MEK	0	0
9		0			0
10		0			0
11		0			0
12		0			0
13		0			0
14		0			0
15		0			0
16		0			0
17		0			0
18		0			0
19		0			0
20		0			0
21		0			0
22		0			0
23		0			0
24		0			0
25		0			0
26		0			0
27		0			0
28		0			0
29		0			0
30		0			0
31		0			0
32		0			0
33		0			0
34		0			0
35		0			0
36		0			0
37		0			0
38		0			0
39		0			0
40		0			0

Total HAP Emissions	15.686875
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Total Avg Hrly HAP Emissions	12.5495
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Table 13.2.6-1. PARTICULATE EMISSION FACTORS FOR ABRASIVE BLASTING^a

EMISSION FACTOR RATING: E

Source	Particle size	Emission factor, lb/1,000 lb abrasive
Sand blasting of mild steel panels ^b (SCC 3-09-002-02)	Total PM	
	5 mph wind speed	27
	10 mph wind speed	55
	15 mph wind speed	91
	PM-10 ^c	13
	PM-2.5 ^c	1.3
Abrasive blasting of unspecified metal parts, controlled with a fabric filter ^d (SCC 3-09-002-04)	Total PM	0.69

a One lb/1,000 lb is equal to 1 kg/Mg. Factors represent uncontrolled emissions, unless noted.
SCC = Source Classification Code.

b Reference 10.

c Emissions of PM-10 and PM-2.5 are not significantly wind-speed dependent.

d Reference 11. Abrasive blasting with garnet blast media.

References For Section 13.2.6

1. C. Cowherd and J. Kinsey, *Development Of Particulate And Hazardous Emission Factors For Outdoor Abrasive Blasting*, EPA Contract No. 68-D2-0159, Midwest Research Institute, Kansas City, MO, June 1995.
2. Written communication from J. D. Hansink, Barton Mines Corporation, Golden, CO, to Attendees of the American Waterways Shipyard Conference, Pedido Beach, AL, October 28, 1991.
3. South Coast Air Quality Management District, *Section 2: Unconfined Abrasive Blasting*, Draft Document, El Monte, CA, September 8, 1988.
4. A. W. Mallory, "Guidelines For Centrifugal Blast Cleaning", *J. Protective Coatings And Linings*, 1(1), June 1984.
5. B. Baldwin, "Methods Of Dust-Free Abrasive Blast Clearing", *Plant Engineering*, 32(4), February 16, 1978.
6. B. R. Appleman and J. A. Bruno, Jr., "Evaluation Of Wet Blast Cleaning Units", *J. Protective Coatings And Linings*, 2(8), August 1985.

100,000 lbs

27 lb/1000 lb

27 lb x 100 =

2700 lbs
of
abrasive blast
PM

hourly emissions

VOC coating-MEK $6.67 \text{ ppq} \times 5 \text{ gal} =$
33.4 PPH

PM Chemlok 220 $8.15 \text{ ppq} \times 5 \text{ gal} =$
40.75 PPH

total HAPs Chemlok 205 (75%) $5.89 \times 5 \text{ gal} =$
30 PPH

MIBK Chemlok 205 (60%) $4.7 \text{ ppq} \times 5 \text{ gal} =$
23.5 PPH

xylene Chemlok 220 (50%) $4.08 \text{ ppq} \times 5 \text{ gal} =$
20.4 PPH

ethyl benzene Chemlok 220 (15%) $1.25 \times 5 \text{ gal} =$
6.25 PPH

abrasive blast

$2700 \text{ lbs/yr PM} \div 200 \text{ hrs/yr} =$
 13.5 lbs/hr

AIR QUALITY PERMIT NOTICE

Notice of Application

Notice is given that Huntington Steel & Supply Company has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a Construction Permit for a Surface Coating Operation located on 63 Business Park Rd, Holden, in Logan County, West Virginia. The latitude and longitude coordinates are:

37.824612, -82.053883

The applicant estimates the potential to discharge the following Regulated Air Pollutants will be: VOC 20 TPY, Total HAPS 20 TPY, MIBK 6 TPY, Xylene 7.6 TPY, Ethyl Benzene 1.53 TPY, PM 2 TPY, and PM10 1 TPY.

Startup of operation is planned to begin on or about the 1st day of July, 2016. Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE, Charleston, WV 25304, for at least 30 calendar days from the date of publication of this notice.

Any questions regarding this permit application should be directed to the DAQ at (304) 926-0499, extension 1250 during normal business hours.

Dated this the 20th day of May, 2016

By: Richard English

Operations Manager

100 3rd Ave

Huntington, WV 25701

**Attachment R
AUTHORITY OF CORPORATION
OR OTHER BUSINESS ENTITY (DOMESTIC OR FOREIGN)**

TO: The West Virginia Department of Environmental Protection,
Division of Air Quality

DATE: May 20, 2016

ATTN.: Director

Corporation's / other business entity's Federal Employer I.D. Number 55-0328678

The undersigned hereby files with the West Virginia Department of Environmental Protection, Division of Air Quality, a permit application and hereby certifies that the said name is a trade name which is used in the conduct of an incorporated business or other business entity.

Further, the corporation or the business entity certifies as follows:

(1) Richard English (is/are) the authorized representative(s) and in that capacity may represent the interest of the corporation or the business entity and may obligate and legally bind the corporation or the business entity.

(2) The corporation or the business entity is authorized to do business in the State of West Virginia.

(3) If the corporation or the business entity changes its authorized representative(s), the corporation or the business entity shall notify the Director of the West Virginia Department of Environmental Protection, Division of Air Quality, immediately upon such change.

Alan E. Rattusford President
President or Other Authorized Officer /
(Vice President, Secretary, Treasurer or other
official in charge of a principal business function of
the corporation or the business entity)

(If not the President, then the corporation or the business entity must submit certified minutes or bylaws stating legal authority of other authorized officer to bind the corporation or the business entity).

James E. Eason
Secretary

Huntington Steel & Supply Co., Inc.
Name of Corporation or business entity