

Material Safety Data Sheet

HMIS

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|---------------|----|
| Health Hazard | 1* |
| Fire Hazard | 2 |
| Reactivity | 0 |

*Indicates a chronic health hazard.

1 Product & Company Identification

Manufacturer's Name: Alsey Refractories Company Product Name: Rust
 Highway 106 Product Type: Firebrick Stain & Color Enhancer
 Alsey, IL 62610
 Phone: 314-963-7900

2 Hazards Identification

| Potential Health Effects | Acute | Chronic |
|--------------------------|--|---|
| Eyes | <u>PM ACETATE</u> : Contact can cause painful eye irritation. <u>DENATURED ETHANOL</u> : Contact causes immediate burning and stinging sensation with tearing. High vapor concentrations may cause irritation. | |
| Skin | <u>PM ACETATE</u> : Can be absorbed and cause mild poisoning. | EXPOSURE: None known. |
| Inhalation | <u>PM ACETATE</u> : Can cause mucous membrane irritation, nausea, dizziness or nasal tract tumors at higher concentrations. <u>DENATURED ETHANOL</u> : Prolonged and repeated exposure to vapors and mist may result in irritation of mucous membranes, headaches, and symptoms of central nervous system depression such as lack of concentration, somnolence. | <u>PM ACETATE</u> : Human systemic effects by inhalation: olfactory (nasal) tumors, general anesthesia, and nausea. An experimental teratogen. Many glycol ethers have dangerous human reproductive effects. ***Prolonged or repeated exposure to solvents may cause permanent brain and nervous system damage, including memory loss and impairment of coordination and reaction time. May cause toxic brain disease (encephalopathy), associated with brain tissue death. May cause liver and kidney damage. Inhaling concentrated vapors is harmful and may be fatal. |
| Ingestion | <u>DENATURED ETHANOL</u> : Causes dizziness, drowsiness, decreased reaction time, euphoria, nausea, vomiting, staggering gait and coma. | <u>DENATURED ETHANOL</u> : May cause liver, kidney, brain, central nervous system and eye damage. |

***Note: This product is a blend of materials which has not been tested as a mixture. The health effect data is based on the individual components.

Carcinogenicity: NTP CARCINOGEN: No IARC MONOGRAPHS: No OSHA REGULATED: No. Not known to contain any ingredients recognized as carcinogens by the National Toxicology Program (NTP), the International Agency for Cancer Research (IARC) or the Occupational Safety and Health Administration (OSHA).

Medical Conditions Generally Aggravated by Exposure: Pre-existing skin, respiratory, liver and kidney disorders.

PM ACETATE: Persons with eye or respiratory conditions may be more sensitive.

3 Composition/Information of Ingredients

| Name | CAS-No | Weight % |
|---|-------------|----------|
| C.I Pigment Black 12 | 068187-02-0 | 5-15 |
| Denatured Ethanol (44mm Hg@68°F) | Mixture | 1-10 |
| 2-Propanol,1-Methoxy-,Acetate (3.7mm Hg@68°F) | 000108-65-6 | 1-10 |

4 First Aid Measures

Eye Contact: Wash with large quantities of fresh water.

Skin Contact: Wash with soap and water. Remove contaminated clothing and wash before reuse.

Ingestion: Drink large quantities of water or milk to dilute. DO NOT INDUCE VOMITING. If vomiting occurs make sure victim's head is below their hips to prevent aspiration of vomitus. Call a physician or poison control center immediately at 1(800)452-7165.

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Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

5 Fire Fighting Measures

Extinguishing Media: Foam, Alcohol Foam, CO₂, Dry Chemical, Water fog
 Precautions for Firefighters: Hazardous decomposition products may form from incomplete combustion. Wear full protection gear with self-contained positive pressure breathing apparatus.
 Unusual Fire & Explosion Hazards: Combustible Liquid and Vapors. Closed container can build pressure from heat and rupture explosively. Volatile vapors can burn in the open or explode if confined. Vapor is heavier than air and can travel long distances to source of ignition.

6 Accidental Release Measures

Small/Large Spill: Evacuate all nonessential personnel. Remove all source of ignition. Ventilate area if possible. Avoid breathing vapors.
 Methods for Clean Up: Spill cleanup beyond the scope of normal maintenance activities should be performed by trained response personnel. In the event of a large transportation related spill or emergency call CHEMTREC AT 1-800-424-9300.

7 Handling and Storage

Handling: Combustible Liquid and Vapors! Store only in areas approved for combustible liquids. Keep clear of all sources of ignition. Storage temperature must be below 120 deg. F. Freezing temperatures may affect product stability. Keep container tightly closed when not in use. Do not transfer to unlabeled container.
 Storage: Close container after each use. Empty containers may contain explosive vapors or dangerous residues. Do not cut, puncture, or weld on or near container. All labeled hazards must be observed. Ground and bond all holding and transferring containers.

8 Exposure Controls and Personal Protection

Exposure Guidelines

| Chemical Name | ACGIH TLV | OSHA PEL |
|---|---------------------|---------------------|
| C.I. Pigment Black 12 | 10mg/m ³ | 15mg/m ³ |
| Denatured Ethanol (44mm Hg@68°F) | 1000ppm | 1000ppm |
| 2-Propanol,1-Methoxy-,Acetate (3.7mm Hg@68°F) | | Not established |

Engineering Measures: Sufficient ventilation, in volume and pattern should be provided to keep the air contaminants below the TLV/PEL levels. Remove vapors from low areas of stagnant air (e.g., corners near floor where vapors may collect).

Eye/Face Protection: Wear splash goggles or use face shield with safety glasses for splash protection. If vapor concentration causes eye irritation wear full-face respirator. Do not wear contact lenses when working with chemicals. Contact lenses can trap chemical next to eye which may increase eye damage.

Skin and Body Protection: Use gloves impervious to solvent. Follow glove manufacturer's recommendation for selecting gloves according to the solvents in this product.

Respiratory Protection: If ventilation is not adequate to reduce vapors below regulatory limits, use a self-contained (air supplied) positive pressure breathing apparatus, or a NIOSH approved air purifying respirator (APR) equipped with organic vapor cartridges (black striped cartridge). Failure to use proper respiratory protection may be harmful or fatal. User must be properly trained and fitted to assure effective protection. Follow all manufacturers' recommendations for use of filter. WARNING: Do not use an APR if oxygen level is below 19.5% by volume.

Other Protective: A protective apron should be used for splash protection. When spraying this product a spray hood is recommended to cover hair and face. Skin should be covered as much as possible to protect from overspray or mist. A continuous 15 minute eye wash station and a chemical spill shower should be available in case of emergency.

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Work/Hygienic Practices: In handling any chemicals, personal hygiene is extremely important. Always wash your hands and face before eating or when done handling or using this product. Keep food and drink out of work areas. Some items such as cigarettes or gum readily absorb solvent vapors and may increase your overall exposure to this product.

9 Physical and Chemical Properties

Physical State: Liquid Odor: Solvent odor Water Solubility: Soluble Flash Point: 115°F
Boiling Point/Range: 173-302°F Density: 9.07lb/gl Specific Gravity: 1.09 (H2O=1)
Vapor Density: Heavier than air Evaporation Rate: Slower than ether
Flammable Limits in Air by Volume: Lower: 1.3 Upper: 19
VOC as Supplied: 0.38lb/gl 46g/l VOC Excluding EPA Exempt Solvents/Water: 2.27lb/gl 272g/l
Check with your state/local Air Quality regulatory agency to determine which VOC Calculation you should use.

10 Stability and Reactivity

Stability: Stable
Incompatible Products: Strong oxidizing agents
Conditions to Avoid: High temperatures, sources of ignition. Do not use in areas with poor ventilation.
Hazard Byproducts: Carbon monoxide, carbon dioxide Hazardous polymerization will not occur.

11 Toxicological Information

See sections 2, 4, 8.

12 Ecological Information

Ecotoxicological/chemical fate information: not available

13 Disposal Considerations

Disposal of Product: Dispose of waste according to Federal, State, and local regulations.
Packaging Disposal: Do not put used container into incinerator, wood stove, or home trash compactor.

14 Transport Information

U.S.A. DOT: (Ground): Paint, Combustible liquid, UN1263, PG III.
(Limited Quantities/Ground): Inner packaging 1.3 gallons or less each net capacity in strong outer packaging and total package weight not exceeding 66 pounds (30 kg): Limited Quantity, ORM-D
IATA Shipping Description (Air): Paint, Class 3, UN1263, PG III.
IMDG Shipping Description (Waterways): Paint, Flammable Liquid, Class 3, UN1263, PG III. Flashpoint 46°C.

15 Regulatory Information

OSHA Classification: Combustible Liquid—Class II
Clean Air Act: Ozone Depleting Chemicals: Not known to contain or be manufactured with Class 1 or Class 2 Ozone Depleting Chemicals (ODC's)
RoHS Directive: This product complies with the RoHS (Regulation of Hazardous Substances) Directive.
U.S. Federal Regulations
SARA 313/40 CFR 372: This product contains no reportable materials at or above normal reporting levels.
Clean Air Act Amendment Section 112 (HAPS): This product contains no reportable materials at or above normal reporting levels.

16 Other Information

MSDS Status: Replaces all prior MSDS.

Note: This material safety data sheet contains confidential proprietary information and is not to be disclosed to the general public or to competition except as required by law. The information accumulated herein is believed to be accurate but is not warranted to be, whether originating with Alsey Refractories Co. or not. This information is offered solely for use in your evaluation of this product in respect to safety, health, and environmental hazards.

End of MSDS