

MATERIAL SAFETY DATA SHEET

This MSDS complies with 29 CFR 1910.1200 (OSHA Hazard Communication Standard) and Canadian WHMIS Regulations.

IMPORTANT: Read this MSDS before handling and disposing of this product.

Pass this information on to employees, customers and users of this product.

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identity: JS160H Mastic

Intended Use: Mastic for water-proofing applications

Manufacturer: Protecto Wrap Company
2255 South Delaware
Denver, CO 80223

Telephone: (303) 777-3001

Fax: (303) 777-9273

Internet: www.protectowrap.com

HMIS Hazard Ratings

Health 2

Fire 3

Reactivity 0

Emergency Phone: CHEMTREC: (800) 424-9300

MSDS Date of Preparation: 02/23/04

Prepared by: Denese A. Deeds, CIH Industrial Health & Safety Consultants, Inc. Woodbridge, CT 203-929-3473

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component	CAS No.	Amount	Exposure Limit
Toluene	108-88-3	15-25%	200 ppm PEL-TWA 50 ppm TLV-TWA skin
Asphalt (petroleum; bitumen)	8052-42-4	20-30%	0.5 mg/m ³ TLV-TWA
Talc	14807-96-6	30-50%	20 mppcf PEL-TWA 2 mg/m ³ TLV-TWA (respirable)

Non-Hazardous Components >1%: Resins and Polymers 10-30%

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

This product is a black, viscous liquid with an aromatic odor. Liquid and vapors are flammable. May cause eye and skin irritation. Inhalation of vapors or mist may cause respiratory irritation and central nervous system effects such as headache, dizziness, drowsiness, nausea and unconsciousness. Prolonged and/or repeated overexposure may cause liver, kidney, and nervous system damage.

4. FIRST AID MEASURES

EYE: First check victim for contact lenses and remove if present. Flush victim's eyes with large quantities of water for at least 15 minutes, holding the eyelids apart. Get medical attention if irritation persists.

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SKIN: Remove contaminated clothing. Wash skin thoroughly with soap and water. If rash or irritation develop, get medical attention. Launder clothing before re-use. (Discard contaminated shoes)

INGESTION: If conscious, rinse mouth with water. Never give anything by mouth to an unconscious or convulsing person. **DO NOT INDUCE VOMITING.** Get immediate medical attention.

INHALATION: Immediately remove victim to fresh air. If breathing is difficult have qualified personnel administer oxygen. If breathing has stopped, administer artificial respiration. Get immediate medical attention.

5. FIRE FIGHTING MEASURES

FLASH POINT: 45 F (7° C) (Lowest Component)

FLAMMABLE LIMITS: LEL: 1.2% UEL: 7.1%

AUTOIGNITION TEMPERATURE: Not available

EXTINGUISHING MEDIA: Use carbon dioxide, universal foam, dry chemical or water fog. Do not use water stream. Use water to cool exposed containers and structures.

UNUSUAL FIRE OR EXPLOSION HAZARDS: This product is flammable and forms explosive mixtures with air. Vapors are heavier than air and will travel along surfaces to remote ignition sources and flash back. Closed containers may explode if exposed to extreme heat.

SPECIAL FIRE-FIGHTING INSTRUCTIONS: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing. Do not allow run-off from fire fighting to enter drains or water courses.

HAZARDOUS COMBUSTION PRODUCTS: Oxides of carbon and nitrogen, acrolein, ketones, aldehydes and other organic compounds.

EXPLOSION DATA (sensitivity to mechanical impact or static discharge): Flammable vapors may be ignited by static spark. Electrically bond and ground containers for product transfer.

6. ACCIDENTAL RELEASE MEASURES

Remove all sources of ignition. Ventilate area with explosion proof equipment. Wear appropriate protective clothing as described in Section 8. Contain and collect using inert absorbent materials and place in appropriate containers for disposal. Report releases as required by local, state and federal authorities.

7. HANDLING AND STORAGE

HANDLING: Avoid contact with the eyes, skin and clothing. Avoid breathing vapors. Wear protective clothing and equipment as described in Section 8. Use only with adequate ventilation. Wash thoroughly with soap and water after handling. Keep containers closed when not in use. Keep product away from heat, sparks, flames and all other sources of ignition. Do not permit smoking in use or storage areas. Use with non-sparking tools and explosion proof equipment. Electrically bond and ground containers for transfer.

Do not cut, drill, grind or weld on or near containers, even empty containers. Empty containers retain product residues can be hazardous. Follow all MSDS precautions when handling empty containers.

STORAGE: Store in accordance with regulations for the storage of flammable liquids. Do not store above 49°C (120°F). Store in a dry, well ventilated area away from heat, direct sunlight and all sources of ignition. Store away from oxidizers and acids.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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EXPOSURE GUIDELINES: Refer to Section 2.

ENGINEERING CONTROLS: Use with adequate local exhaust ventilation to maintain exposures below the occupational exposure limits. Use explosion proof equipment.

RESPIRATORY PROTECTION: If the exposure limits are exceeded a NIOSH approved respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice.

SKIN PROTECTION: Wear impervious gloves such as teflon or viton.

EYE PROTECTION: Safety goggles and/or face shield should be worn where contact is possible. Do not wear contact lenses.

OTHER: Impervious clothing as needed to prevent contact. A safety shower and eye wash should be available in the immediate work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Black, viscous liquid an aromatic odor. The odor threshold for toluene is reported to be 1.6 ppm.

PHYSICAL STATE: Liquid

BOILING POINT: 111°C (232°F) (toluene)

VAPOR PRESSURE: 16.7 mm Hg @ 20°C (toluene)

VAPOR DENSITY: 3.14 (toluene)

EVAPORATION RATE: 2.24 (toluene) (n-butyl acetate=1)

SOLUBILITY IN WATER: Insoluble

BULK DENSITY: 11.4 lbs/gal

pH: NA

MELTING POINT: NA

OCTANOL/WATER COEFFICIENT: ND

VOC CONTENT: 180 g/liter

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal storage and handling conditions.

INCOMPATIBILITY: Strong acids and oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon and nitrogen, acrolein, ketones, aldehydes and other organic compounds.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

HEALTH HAZARDS:

INGESTION: Ingestion may cause mucous membrane and gastrointestinal irritation and nervous system depression with symptoms of headache, dizziness, nausea, narcosis and unconsciousness. Aspiration into the lungs during ingestion or vomiting may cause serious lung damage which may be fatal.

INHALATION: Inhalation of vapors may cause mucous membrane and respiratory irritation and central nervous system depression with symptoms of headache, dizziness, nausea, vomiting, disorientation, stupor and unconscious. Severe overexposures may cause respiration depression and

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death. Hydrogen sulfide will evolve from asphalt and collect in the headspace of containers. Hydrogen sulfide is irritating to the eyes and respiratory tract at low concentrations. High concentrations of hydrogen sulfide can cause respiratory arrest and death.

EYE: Contact may cause irritation.

SKIN: Repeated or prolonged contact may cause irritation, drying and defatting. The liquid may be absorbed through the skin causing effects similar to those described under inhalation and ingestion.

SENSITIZATION: This product is not expected to cause sensitization.

CHRONIC/CARCINOGENICITY: Prolonged occupational overexposure may cause cardiac sensitization, effects on hearing and damage to the nervous system, blood system, liver and kidneys. Prolonged intentional toluene abuse may damage many organ systems including: central and peripheral nervous systems, vision, hearing, liver, kidneys, heart and blood. Such abuse has been associated with brain damage characterized by disturbances in gait, personality changes and loss of memory. Toluene has been found to cause adverse reproductive effects and/or birth defects in studies with laboratory animals. Prolonged inhalation of talc dust may cause lung damage (pulmonary fibrosis), however, the talc in this product is bound in a polymer matrix and dust exposure would not be expected. No ingredient in this product present at greater than 0.1% is listed as a carcinogen by NTP, IARC, or OSHA.

MUTAGENICITY: Toluene has tested positive for mutagenicity in some test systems.

SYNERGISTIC PRODUCTS: None specifically known. Products containing chemicals that effect the same target organ systems would be expected to have synergistic effects; for example other solvent containing products.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Employees with pre-existing skin, liver and kidney disease may be at increased risk from exposure.

ACUTE TOXICITY VALUES:

Asphalt: Oral Rat LD50 - >5.0 g/kg

Skin Rabbit LD50 - > 2.0 g/kg

Toluene: Oral Rat LD50 - 636 mg/kg

Inhalation Rat LC50 - 49 g/m³/4 hr

Skin Rabbit LD50 - 14100 uL/kg

Talc: No acute toxicity data is available

12. ECOLOGICAL INFORMATION

No ecotoxicity data is available for this product at this time.

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

DOT HAZARDOUS MATERIALS DESCRIPTION:

ND = No Data

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NA = Not Applicable

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Proper Shipping Name: Resin Solution

UN Number: UN1866

Hazard Class/Packing Group: 3, PG II

Labels Required: Flammable Liquid

Note: If >4000 pounds of this product in a single container, RQ requirements apply.

15. REGULATORY INFORMATION

CERCLA/SUPERFUND: This product has a Reportable Quantity (RQ) of 4000 lbs. based on the RQ for Toluene of 1000 lbs. Releases above the RQ must be reported to the National Response Center. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA HAZARD CATEGORY (311/312): Acute Health, Chronic Health, Fire Hazard.

SARA 313 INFORMATION: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372):

Toluene	108-88-3	15-25%
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EPA TSCA INVENTORY: All of the ingredients in this product are listed on the EPA TSCA Inventory.

CALIFORNIA PROPOSITION 65

This product contains the following chemicals known to the State of California to cause cancer: Benzene <0.1%

This product contains the following chemicals known to the State of California to cause developmental toxicity (birth defects): Toluene 15-25%, Benzene <0.1%

This product contains the following chemicals known to the State of California to cause male reproductive toxicity: Benzene <0.1%

CANADA:

This product has been classified under the CPR and this MSDS discloses information elements required by the CPR.

CANADIAN WHMIS CLASSIFICATION: Class B Division 2 (Flammable Liquid); Class D Division 2 Subdivision A (Very Toxic Material Causing other Toxic Effects)

16. OTHER INFORMATION

NFPA RATING: Health = 2	Fire = 3	Reactivity = 0
HMIS RATING: Health = 2*	Fire = 3	Reactivity = 0

REVISION SUMMARY:

07/11/02	General Review of MSDS, Changed Date of Preparation
02/23/04	Section 15: California Prop 65

NOTICE

The supplier disclaims all expressed or implied warranties of merchantability or fitness for a specific use, with respect to the product or the information provided herein, except for conformation to contracted specifications. All information appearing herein is based upon data obtained from

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manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency. Conditions of use are beyond our control and therefore, users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling and disposal of the product. Users also assume all risks in regards to the publication or use of, or reliance upon, information contained herein.

This information relates only to the product designated herein and does not relate to its use in combination with any other material or process.