MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Revision Date: 1999-01-20

100000213/F/USA

Product Name: "EPOLENE" E-15 Wax

Product Identification Number(s): P0463104

Manufacturer/Supplier: Eastman Chemical Company, Kingsport, Tennessee 37662

MSDS Prepared by: Eastman Product Safety and Stewardship, Eastman Chemical

Company, Kingsport, TN 37662

For Emergency Health, Safety & Environmental Information, call 800-EASTMAN

For Emergency Transportation Information, call CHEMTREC at 800-424-9300 or

For Other Information, call your Eastman representative or the Eastman

MARKETED BY HARWICK STANDARD

DISTRIBUTION CORPORATION

60 S. Seiberling Street • Akron, Ohio 44305

Synonym(s): not applicable

Molecular Formula: not applicable

Chemical Name: not applicable

operator at 423-229-2000 (USA)

Molecular Weight: not applicable

call 800-EASTMAN

Product Use: wax

2. COMPOSITION/INFORMATION ON INGREDIENTS Weight % - Component - (CAS Registry Number)

functionalized polyethylene (068441-17-8) 100

3. HAZARDS IDENTIFICATION

CAUTION! POWDERED MATERIAL MAY FORM EXPLOSIVE DUST-AIR MIXTURES

MOLTEN MATERIAL WILL PRODUCE THERMAL BURNS

HMIS Hazard Ratings: Health - 1, Flammability - 1, Chemical Reactivity - 0

NFPA Hazard Ratings: Health - 1, Flammability - 1, Instability - 0

NOTE: HMIS and NFPA ratings involve data and interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately

with the safe handling of this material, all the information contained in this MSDS must be considered.
4. FIRST-AID MEASURES
Inhalation: If symptomatic, move to fresh air. Get medical attention if symptoms persist.
Eyes: If molten material contacts the eye, immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention immediately.
Skin: If burned by contact with molten material, cool as quickly as possible. Do not peel material from skin. Get medical attention.
Ingestion: Material is not expected to be absorbed from the gastrointestinal tract so that induction of vomiting should not be necessary.
Note to Physicians: Burns should be treated as thermal burns. The material will come off as healing occurs; therefore, immediate removal from the skin is not necessary.
5. FIRE FIGHTING MEASURES
Extinguishing Media: water spray, dry chemical
Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and

Hazardous Combustion Products: carbon dioxide, carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Sweep or scoop up and remove

and Plastics Industries."

protective clothing.

dust-air mixtures.

7. HANDLING AND STORAGE

Personal Precautionary Measures: No special precautionary measures should be

Unusual Fire and Explosion Hazards: Powdered material may form explosive

needed under anticipated conditions of use.

Prevention of Fire and Explosion: Keep from contact with oxidizing materials.

Minimize dust generation and accumulation. Refer to NFPA Pamphlet No. 654,

"Prevention of Fire and Dust Explosions in the Chemical, Dye, Pharmaceutical,

Storage: Keep container closed

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits:

OSHA (USA) Permissible Exposure Limit (PEL, 1989 Table Z-1-A values or section-specific standards); not established Ventilation: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory protection may be needed in special circumstances such as poorly ventilated spaces, mechanical generation of dusts, heating, drying, etc.

ACGIH Threshold Limit Value (TLV): not established

concentrations to an acceptable level, an approved respirator must be worn. Respirator type: dust, organic vapor. If respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998.

Respiratory Protection: If engineering controls do not maintain airborne

Eye Protection: It is a good industrial hygiene practice to minimize eye contact. Skin Protection: When material is heated, wear gloves to protect against thermal burns.

Recommended Decontamination Facilities: eye bath, washing facilities

- Physical Form: solid - Color: white - Odor: odorless

- Odor Threshold: not applicable - Specific Gravity at 25°C (77°F) (water = 1): 0.93-0.96 - Vapor Pressure: negligible

- Vapor Density (Air = 1): not applicable - Evaporation Rate: not applicable

- Boiling Point: not applicable - Softening Point: 100-114°C (212-237°F)

9. PHYSICAL AND CHEMICAL PROPERTIES

- Viscosity at 125°C (257°F): 300 mPa.s or cP

- Solubility in Water at Ambient Temperature: negligible - pH: not applicable - Octanol/Water Partition Coefficient: not available

- Flash Point (Cleveland open cup): >204°C (>400°F)

- Lower Flammable Limit: not applicable - Upper Flammable Limit: not applicable

- Autoignition Temperature (ASTM D 659-78): 468°C (875°F) - Sensitivity to Mechanical Impact: insensitive - Sensitivity to Static Discharge: not available

10. STABILITY AND REACTIVITY

Stability: stable

Incompatibility: Material can react with strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION Effects of Exposure Inhalation: Low hazard for usual industrial handling or commercial handling by trained personnel. Eyes: Molten material will produce thermal burns. Skin: Molten material will produce thermal burns Ingestion: Expected to be a low ingestion hazard Acute Toxicity Data: Oral LD-50 (rat): >6400 mg/kg (highest dose tested) Inhalation LC-50: not available Dermal LD-50 (rabbit): >2000 mg/kg (highest dose tested) Skin irritation (guinea pig): slight Skin sensitization (guinea pig): none

Hazardous Polymerization: will not occur

12. ECOLOGICAL INFORMATION Introduction: This environmental effects summary is written to assist in addressing emergencies created by an accidental spill which might occur during

Definitions for the following section(s): LOEL = lowest-observed-effect level, NOAEL = no observed-adverse-effect level, NOEL = no-observed-effect level.

Subchronic Toxicity Data: Oral study (90 days, rat): NOEL = 5.0% in diet

the shipment of this material, and, in general, it is not meant to address

discharges to sanitary sewers or publicly owned treatment works. This material has not been tested for environmental effects. It is a high molecular weight polymer with a very low water solubility. As such, it is expected to have a low biochemical oxygen demand and to cause essentially no oxygen depletion in aquatic systems. It is expected to have a low potential to affect aquatic organisms, secondary waste treatment microorganisms, and the germination and early growth of plants. It is expected to be nonbiodegradable and unlikely to bioconcentrate. In a spill situation this material may be visually unpleasant; however, it is not expected to cause any adverse

environmental effects.

13. DISPOSAL CONSIDERATIONS

Discharge, treatment, or disposal may be subject to national, state, or local laws. Incinerate.

14. TRANSPORT INFORMATION

- DOT (USA) Status: not regulated

- TDG (Canada) Status: not regulated - Air - International Civil Aviation Organization (ICAO) - ICAO Status: not regulated - Sea - International Maritime Dangerous Goods (IMDG) - IMDG Status: not regulated 15. REGULATORY INFORMATION - This document has been prepared in accordance with the MSDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200. - OSHA Classification: nonhazardous - California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986): material(s) known to the State to cause cancer: none known to Eastman - California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986): material(s) known to the State to cause adverse reproductive effects: none known to Eastman - This document has been prepared in accordance with the MSDS requirements of the WHMIS Controlled Products Regulation. - WHMIS (Canada) Status: noncontrolled - WHMIS (Canada) Hazard Classification: not applicable - Carcinogenicity Classification (components present at 0.1% or more): - International Agency for Research on Cancer (IARC): not listed - American Conference of Governmental Industrial Hygienists (ACGIH): not listed - National Toxicology Program (NTP): not listed - Occupational Safety and Health Administration (OSHA): not listed - Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372: none - SARA (U.S.A.) Sections 311 and 312 hazard classification(s): not applicable - US Toxic Substances Control Act (TSCA): This product is listed on the TSCA inventory. Any impurities present in this product are exempt from listing. - Canadian Environmental Protection Act (CEPA) and Domestic Substances List (DSL): This product is listed on the DSL. Any impurities present in this product are exempt from listing. - European Inventory of Existing Commercial Chemical Substances (EINECS): This product is listed on EINECS. Any polymer intentionally present in this product has regulatory clearance under Directives of the European Union. - Australian Inventory of Chemical Substances (AICS) and National Industrial Chemicals Notification and Assessment Scheme (NICNAS): This product is listed on AICS or otherwise complies with NICNAS. - Japanese Handbook of Existing and New Chemical Substances: This product is listed in the Handbook or has been approved in Japan by new substance notification.

Minimize dust generation and accumulation.

FIRST AID: If burned by contact with molten material, cool as quickly as possible. Do not peel from skin. Get medical attention. If molten material

MOLTEN MATERIAL WILL PRODUCE THERMAL BURNS

POWDERED MATERIAL MAY FORM EXPLOSIVE DUST-AIR MIXTURES

contacts the eye, immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention

16. OTHER INFORMATION

Label Statements:

CAUTION!

immediately.

will come off as healing occurs; therefore, immediate removal from the skin is not necessary.

CAUTION: FOR MANUFACTURING, PROCESSING OR REPACKING BY TRAINED PERSONNEL

Note to Physicians: Burns should be treated as thermal burns. The material

The information contained herein is based on current knowledge and experience; no responsibility is accepted that the information is sufficient or correct in all cases. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers and the protection of the environment.

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The symbol ">" in the left margin denotes a revision in this section.