

Osmose MATERIAL SAFETY DATA SHEET

MATERIAL SAFETY DATA SHEET: **OSMOWELD MPF**

SECTION I

| | |
|---------------------------------|--|
| MSDS NUMBER: | 40-UTL |
| MSDS CODE: | UTL |
| SYNONYMS: | EPOXY RESIN BLEND |
| MANUFACTURED FOR: | Osmose Utilities Services, Inc. |
| DIVISION: | N/A |
| EPA REGISTRATION NUMBER: | N/A |
| EMERGENCY PHONE: | CHEMTREC: 1-800-424-9300 |
| OTHER CALLS: | (716) 882-5905 |
| ADDRESS: | 980 Ellicott Street, Buffalo, NY 14209 |
| MSDS PREPARED BY: | Teri Muchow |
| DATE PREPARED: | February 6, 2003 |
| DATE LAST REVISED: | April 10, 2013 (replaces August 7, 2009) |

ADDITIONAL INFORMATION

CHEMTREC'S EMERGENCY TELEPHONE NUMBER IS TO BE USED ONLY IN THE EVENT OF CHEMICAL EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT INVOLVING CHEMICALS.

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

| TRADE NAME: OSMOWELD MPF | CAS | OSHA PEL | ACGIH TLV | OTHER | % |
|--|------------|----------|-----------|-------|-----------|
| INGREDIENT NAME | | | | | |
| HARDENER: | | | | | |
| Fatty Acid, c-18 unsaturated | 68459-44-9 | N/E | N/E | N/A | 5 - 15% |
| MXDA | 1477-55-0 | N/E | N/E | N/A | 5 - 15% |
| Calcium Carbonate | 1317-65-3 | N/E | N/E | N/A | 55 - 70 % |
| Benzyl Alcohol | 100-51-6 | N/E | N/E | N/A | 5 - 10% |
| Aminoethylaminopropyltrimethoxy-silane | 1760-24-3 | N/E | N/E | N/A | 1 - 3% |
| Hydrophobic Silica | 67762-90-7 | N/E | N/E | N/A | 1% |
| RESIN: | | | | | |
| Epoxy Resin BPA Standard | 25068-38-6 | N/E | N/E | N/A | 50 - 70% |
| Calcium Carbonate | 1317-65-3 | N/E | N/E | N/A | 20 - 30% |
| Aromatic Hydrocarbon Blend | 64742-94-5 | N/E | N/E | N/A | 10 - 20% |
| Hydrophobic Silica | 67762-90-7 | N/E | N/E | N/A | 1 - 3% |

N/E = Not Established

SECTION III - CHEMICAL CHARACTERISTICS

| BOILING POINT | MELTING POINT | FREEZING POINT | SPECIFIC GRAVITY (H ₂ O = 1) | PERCENT VOLATILE BY VOLUME | THEORETICAL VOC CONTENT (PERCENT OF WEIGHT) |
|---|----------------|--|---|----------------------------|---|
| > 200°F for both parts. | Not Applicable | Not Determined | Hardener: 1.77 Epoxy Resin: 1.17 | N/A | N/A |
| WEIGHT PER GALLON | pH: | VAPOR PRESSURE | VAPOR DENSITY | DENSITY | EVAPORATION RATE BASIS (N-BUAC) = 1 |
| Hardener: 14.74 lb/gal. Epoxy Resin: 9.75 lb/gal. | No data | No data. | Heavier than air for both parts. | See "Specific Gravity" | Not Determined |
| SOLUBILITY IN WATER: Resin - Negligible Hardener: Slight | | REACTIVITY IN WATER: Not applicable to both parts. | | | |
| APPEARANCE AND ODOR: The hardener is a tan viscous liquid with an amine odor. The epoxy resin is a white viscous liquid with a slight sweet odor. | | | | | |

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SECTION IV - FIRE AND EXPLOSION HAZARD DATA

| | | | |
|------------------------------------|---|-----------------------------|--------------------------|
| FLASH POINT | METHOD | FLAMMABLE LIMITS IN AIR (%) | AUTOIGNITION TEMPERATURE |
| Resin: >200°F Hardener: > 200°F | Closed Cup | Not Determined | Not Determined |
| NFPA CODES | HEALTH | R = 2 H = 3 | HMIS CODES: |
| | FLAMMABILITY | R = 1 H = 1 | HEALTH |
| | REACTIVITY | R = 0 H = 0 | FLAMMABILITY |
| | OTHER | N/A | REACTIVITY |
| EXTINGUISHER MEDIA: | Foam, Carbon Dioxide (CO ₂), or dry chemical. | | |
| <i>R = Resin; H = Hardener</i> | | | |

SPECIAL FIRE FIGHTING PROCEDURES: Keep personnel removed from area and upwind of fire. Wear full fire-fighting turnout gear (full bunker gear) and respiratory protection (SCBA). Cool fire exposed containers with water spray.

UNUSUAL FIRE AND EXPLOSION HAZARDS: This product is considered neither flammable nor combustible, but will burn if involved in a fire. Hazardous combustion products may be present

HAZARDOUS COMBUSTION PRODUCTS: Combustion may form aldehydes, nitrous oxides, carbon monoxide (CO), and carbon dioxide (CO₂).

EXPLOSION DATA: Sensitivity of impact and sensitivity to static discharge is not applicable.

SECTION V - REACTIVITY DATA

IS THIS CHEMICAL STABLE UNDER NORMAL CONDITIONS OF HANDLING/STORAGE (Y/N)? Y

CONDITIONS TO AVOID (REGARDING STABILITY): None

INCOMPATIBILITY (MATERIALS TO AVOID): Acids, strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION POSSIBLE (Y/N)? Y

CONDITIONS TO AVOID (REGARDING POLYMERIZATION): Contact with epoxy resins and/or resins under uncontrolled conditions. May release excess heat and vapors.

SECTION VI - HEALTH HAZARDS

ROUTES OF ENTRY: Most likely routes of entry are by skin contact, eye contact and inhalation. The most unlikely route of entry would be by ingestion.

| HARDENER | |
|---|---|
| Health Hazards | Corrosive to skin. Corrosive to eyes. Skin irritant. Eye irritant. May cause skin sensitization. May cause respiratory sensitization. |
| Target Organs | Eyes, Skin, Respiratory System |
| Signs and Symptoms of Acute Exposure | Burns of the eye may cause blindness. Contact of undiluted products with the eyes quickly causes severe irritation and pain and may cause burns, necrosis, and permanent injury. Contact with skin may cause skin irritation. Inhalation of mists may damage contacted tissue and produce scarring. |
| Possible Long Term Effects | This substance may cause skin and/or respiratory sensitization to exposed workers. |
| Medical Conditions Generally Aggravated by Exposure | Asthma, chronic respiratory diseases (e.g. bronchitis, emphysema), eye disease, skin disorders and allergies. |
| Toxicological Properties | Acute Oral LD ₅₀ , Rat is >2240 mg/kg; Acute Dermal LD ₅₀ , Rabbit – 1000 mg/kg; Acute Inhalation LC ₅₀ , Rat - >4.0 mg/l/h (no deaths, estimate) |

| RESIN | |
|---|--|
| Health Hazards | May cause eye irritation. May cause skin sensitization. Moderate skin irritant. |
| Target Organs | Eyes, Skin |
| Signs and Symptoms of Acute Exposure | Contact with skin or eyes causes irritation, redness and discomfort. |
| Possible Long Term Effects | Repeated and/or prolonged exposure may cause allergic reaction/sensitization. Repeated and/or prolonged exposure may result in adverse eye effects (such as conjunctivitis or corneal damage), adverse skin effects (such as rash, irritation or corrosion). |
| Medical Conditions Generally Aggravated by Exposure | Eye diseases, skin disorders and allergies. |
| Toxicological Properties | No data available |

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CHEMICAL LISTED AS A CARCINOGEN OR POTENTIAL CARCINOGEN?: N

- NATIONAL TOXICOLOGY PROGRAM (Y/N): N
- IARC MONOGRAPHS (Y/N): N
- OSHA (Y/N): N



EMERGENCY AND FIRST AID PROCEDURES



EMERGENCY PHONE NUMBER OF MANUFACTURER: CHEMTREC 1(800) 424-9300

1. **INHALATION:** Remove to fresh air, and provide oxygen or artificial respiration if needed. If breathing is difficult, obtain medical attention.
2. **EYE CONTACT:** Flush eyes thoroughly with water, for at least 15 minutes, while holding eyelids open. Seek immediate medical attention.
3. **SKIN CONTACT:** Remove contaminated clothing, wipe excess from skin, and flush the affected area with water for at least 15 minutes. Do NOT apply greases or ointments. Wash contaminated clothing thoroughly before reuse. Obtain medical attention if symptoms persist. Contaminated leather articles such as shoes, cannot be decontaminated and should be destroyed.
4. **INGESTION:** Do not induce vomiting. Give 3 to 4 glasses of water or milk unless the victim is drowsy, convulsing or unconscious. Obtain immediate medical attention.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

US SHIPPING DESCRIPTION: "Consumer commodity", ORM-D

IMDG SHIPPING DESCRIPTION: UN1719, Caustic alkali liquids, n.o.s., 8, III (Aliphatic Amine & Polyimide)

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Store in a warm (50°F - 90°F), dry, ventilated, place. Avoid breathing vapors. Handle in well-ventilated workspace. Avoid contact with skin, eyes or clothing. When handling, do not eat, drink, or smoke.

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: For small spills, i.e. broken tubes, react components and dispose of in a sanitary landfill. For large spills, i.e. drums in a manufacturing facility, reduce vapor spreading with a water spray. Stop the leak, if possible. Construct a dike to prevent spreading. Spread absorbent material over area. Transfer to containers by suction. Dispose of material in accordance with local, state, and federal regulations. Wash the area with soap and water. Prevent washing from entering sewers or waterways.

WASTE DISPOSAL METHODS: This material does not contain any VOC's (volatile organic compounds). Empty tubes may be disposed of in chemical trash. Reacted material may be disposed of in sanitary landfill. Dispose of material in accordance with applicable local, state, and federal laws and regulations. The state and local regulations and laws may differ from federal regulations, and laws may change or be reinterpreted. This information only applies to the material as manufactured. Process, use or contamination may make the information inappropriate, inaccurate, or incomplete. Responsibility for proper waste disposal is with the owner of the waste.

HANDLING PROCEDURES AND EQUIPMENT: Wear protective clothing, boots, gloves and eye protection.

SECTION VIII - CONTROL MEASURES

RESPIRATORY PROTECTION: Not necessary under most operating conditions. NIOSH approved organic vapor respirator should be used in confined areas, or when conditions cause high vapor concentrations. If the percent of oxygen is below the normal then use self-contained breathing apparatus.

VENTILATION REQUIREMENTS: General ventilation may be acceptable under most conditions, although local ventilation is required to control exposure whenever vapors or mists are generated.

PROTECTIVE GLOVES: Neoprene rubber gloves. Cuffed butyl rubber gloves, Nitrile rubber gloves.

EYE PROTECTION: Chemical splash goggles or safety glasses with side shields should be worn as appropriate. Contact lenses should not be worn while using this product. Eye wash stations should be readily available.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: As necessary to avoid dermal contact.

WORK/HYGIENIC PRACTICES: Wash hands after use and before eating, drinking or using tobacco products.

FOOTWEAR: As necessary to avoid dermal contact.

SECTION IX - REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

TSCA: All components are included in the EPA Toxic Substances Control Act (TSCA) Chemical Substance Inventory or are not required to be listed on the TSCA Inventory.

SARA Title III Information

Section 311/312 Hazard Categories: Immediate (Acute) Health: Yes
Delayed (Chronic) Health: Yes
Fire Hazard: No
Reactive Hazard: No
Sudden Release of Pressure: No



































Section 313 - Toxic Chemicals: Pursuant to Section 313, this product does not contain any chemicals in a concentration equal to or greater than the *de minimis* level.

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STATE REGULATIONS:

California Proposition 65: This product does not contain a chemical or chemicals which are recognized by the State of California to cause cancer, birth defects, or other reproductive harm.

Hazardous Materials Information System (HMIS) Personal Protection Codes

| | |
|--|---|
| A  | H  +  +  +  |
| B  +  | I  +  +  |
| C  +  +  | J  +  +  +  |
| D  +  +  | K  +  +  +  |
| E  +  +  | X Ask your supervisor for guidance |
| F  +  +  +  | |
| G  +  +  | |

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