

MATERIAL SAFETY DATA SHEET

Prepared to U.S. OSHA, CMA, ANSI and Canadian WHMIS Standards¹

PART I What is the material and what do I need to know in an emergency?

1. PRODUCT IDENTIFICATION

TRADE NAME (AS LABELED):

CONCRETE CLEANER

CHEMICAL NAME/CLASS:

MIXTURE

SYNONYMS:

None

MANUFACTURER'S NAME:

US Mix Products Company

ADDRESS:

112 South Santa Fe Drive
Denver, Colorado 80223

EMERGENCY PHONE:

1-800-424-9300 (CHEMTREC)

BUSINESS PHONE:

1-303-778-7227

DATE OF PREPARATION:

August 29, 1995

2. COMPOSITION and INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS #	% w/v	EXPOSURE LIMITS IN AIR					OTHER
			ACGIH		OSHA			
			TLV mg/m ³	STEL mg/m ³	PEL mg/m ³	STEL mg/m ³	IDLH	
Glycol Ether Alkylate Containing Solution	Proprietary	< 38	NE	NE	NE	NE	NE	NE
Surfactant	Proprietary	< 21	NE	NE	NE	NE	NE	NE
Alkanolamine Containing Solution	Proprietary	< 15	13	NE	15(vacated)	NE	NE	NE
High Molecular Weight Glycol Ether	Proprietary	< 26	NE	NE	NE	NE	NE	NE

NE = Not Established

C = Ceiling Level

See Section 16 for Definitions of Terms Used.

¹ NOTE: all WHMIS required information is included. It is located in appropriate sections based on the ANSI Z400.1-1993 format.

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: This is a clear, colorless, viscous liquid with an ether-like odor. It is combustible under some conditions, but does not pose unusual hazards during an emergency.

SYMPTOMS OF OVER-EXPOSURE BY ROUTE OF EXPOSURE: This product is moderately toxic by ingestion and irritating upon contact with skin. Contact with the eyes may be very painful. Ingestion may lead to moderate to severe gastric distress.

INHALATION: Vapors of this product are not likely to be inhaled. Any inhaled mist or drops may be irritating and painful to the respiratory system. Mist or droplets may irritate the eyes and cause burning or discomfort.

CONTACT WITH SKIN or EYES: Moderate irritation and reddening of the skin may occur upon contact with the skin, especially upon prolonged contact. Discomfort to severe pain may occur upon contact with the eyes.

SKIN ABSORPTION: The National Institute of Cancer reports that the Alkanolamine absorbs into the body through the skin.




INGESTION: Ingestion of this material may lead to nausea, vomiting, dizziness, and gastric distress.

INJECTION: Accidental injection of this product will cause pain and burning at the point of injection, with local reddening and prolonged healing.

HEALTH EFFECTS OR RISKS FROM EXPOSURE: An Explanation in **Lay Terms.** This product is a skin and eye irritant which also may be toxic if ingested in sufficient amount. All effects may be avoided by following good personal hygiene and the procedures recommended in this MSDS.

ACUTE: Prolonged contact with the skin may cause irritation and reddening. Contact with the eyes may cause painful burning and reddening of the affected eye. Ingestion may result in an upset stomach, with discomfort, nausea, and vomiting.

CHRONIC: Chronic effects are not reported for the components of this product. Routine handling of this product is not anticipated to result in a situation which would lead to any chronic illness.

HAZARDOUS MATERIAL INFORMATION SYSTEM			
HEALTH		(BLUE)	1
FLAMMABILITY		(RED)	1
REACTIVITY		(YELLOW)	0
PROTECTIVE EQUIPMENT			
EYES	RESPIRATORY	HANDS	BODY
	SEE SECTION 8		
For routine industrial applications			

PART II *What should I do if a hazardous situation occurs?*

4. FIRST-AID MEASURES

SKIN EXPOSURE: If spilled on skin, rinse-off all traces with running water. If any irritation occurs, continue rinsing for at least 15 minutes. Remove exposed or contaminated clothing, taking care not to contaminate eyes. Victim and rescuers must seek immediate medical attention.

EYE EXPOSURE: If chemical is splashed in eyes, open victim's eyes while under gentle running water. Use sufficient force to open eyelids. Have victim "roll" eyes. Minimum flushing is for 15 minutes.

INHALATION: If chemical is inhaled, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Remove or cover gross contamination to avoid exposure to rescuers.

INGESTION: If chemical is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, do not induce vomiting. Victim should drink milk, egg whites, or large quantities of water. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow.

Victims of chemical exposure must be taken for medical attention. Rescuers should be taken for medical attention, if necessary. Take copy of label and MSDS to physician or health professional with victim.

5. FIRE-FIGHTING MEASURES

FLASH POINT, (method): Open Tag Cup 212 °F (100 °C).

AUTOIGNITION TEMPERATURE, °C: Not determined.

FLAMMABLE LIMITS (in air by volume, %): Lower: Not applicable.
Upper: Not applicable.

FIRE EXTINGUISHING MATERIALS:

Water Spray: YES

Carbon Dioxide: YES

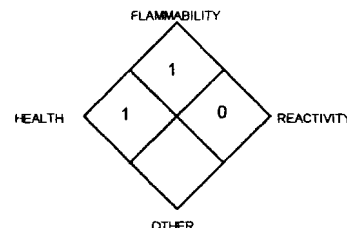
Foam: YES

Dry Chemical: YES

Halon: YES

Other: Any "B" Class.

NFPA RANKING



UNUSUAL FIRE AND EXPLOSION HAZARDS: When involved in a fire, this material may decompose and produce irritating fumes and toxic gases of carbon monoxide, carbon dioxide, and oxides of nitrogen.

Explosion Sensitivity to Mechanical Impact: Not sensitive.

Explosion Sensitivity to Static Discharge: Not sensitive.

SPECIAL FIRE FIGHTING PROCEDURES: Incipient fire responders should wear eye protection. Structural fire fighters must wear Self-Contained Breathing Apparatus and full protective equipment.

6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a spill, clear the affected area, protect people, and respond with trained personnel. Minimum Personal Protective Equipment should be **Level D: safety glasses, rubber gloves, apron, and boots.** Absorb spilled liquid with polypads or other suitable absorbent materials. Decontaminate the area thoroughly with water. **DO NOT WASH THIS PRODUCT INTO THE SEWER.** Place all spill residue in a double plastic bag and seal. Dispose of in accordance with Federal, State, and local hazardous waste disposal regulations (see Section 13).

PART III

How can I prevent hazardous situations from occurring?

7. HANDLING and STORAGE

WORK PRACTICES AND HYGIENE PRACTICES: Avoid getting chemicals ON YOU or IN YOU. Wash hands after handling chemicals. Do not eat or drink while handling chemicals.

STORAGE AND HANDLING PRACTICES: All employees who handle this material should be trained to handle it safely. Avoid breathing vapors or mists generated by this product. Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Keep container tightly closed when not in use. Wash thoroughly after using this material. Spills or purposeful exposure of this product to hot, fibrous insulation may result in fire.

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT: Follow practices indicated in Section 6 (Accidental Release Measures). Make certain application equipment is locked and tagged-out safely. Always use this product in areas where adequate ventilation is provided. Decontaminate equipment using soapy water before maintenance begins. Collect all rinsates and dispose of according to applicable Federal, State, or local procedures.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation. Use a mechanical fan or vent area to outside.

RESPIRATORY PROTECTION: Maintain airborne contaminant concentrations below guidelines listed in Section 2. If respiratory protection is needed, use only protection authorized in 29 CFR 1910.134, or applicable State regulations. Use supplied air respiration protection if oxygen levels are below 19.5%.

EYE PROTECTION: Splash goggles or safety glasses, depending on the task.

HAND PROTECTION: Rubber gloves.

BODY PROTECTION: Use body protection appropriate for task.

9. PHYSICAL and CHEMICAL PROPERTIES

VAPOR DENSITY: Heavier than air.

SPECIFIC GRAVITY: Heavier than water.

SOLUBILITY IN WATER: Miscible.

VAPOR PRESSURE, mm Hg @ 20°C: < 20

APPEARANCE AND COLOR: Clear, colorless to pale yellow, viscous solution.

HOW TO DETECT THIS SUBSTANCE (warning properties): The light oil-like appearance and slight ether-like odor are characteristic of this material.

EVAPORATION RATE (Water = 1): < 1

MELTING POINT or RANGE: Not determined.

BOILING POINT: 100°C

pH: 5 - 8 for a 1% solution in water.

10. STABILITY and REACTIVITY

STABILITY: Stable

DECOMPOSITION PRODUCTS: Thermal degradation produces oxides of nitrogen, carbon monoxide, and carbon dioxide.

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: Strong acids, strong alkalis, and strong oxidizers.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Avoid contact with strong acids, strong alkalis, and strong oxidizers. Avoid extreme heat and prevent the material from forming a mist under conditions in which the mist could be inhaled.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL STABILITY: The components of this product will degrade in soil relatively rapidly.

EFFECT OF MATERIAL ON PLANTS or ANIMALS: While no testing has been reported for the components of this product, except as noted in Section 11, this product is not expected to cause serious or deleterious effects on plants or animals.

EFFECT OF CHEMICAL ON AQUATIC LIFE: No data is available.

13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This chemical, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

EPA WASTE NUMBER: Not applicable.

14. TRANSPORTATION INFORMATION

THIS MATERIAL IS NOT HAZARDOUS AS DEFINED BY 49 CFR 172.101 BY THE U.S. DEPARTMENT OF TRANSPORTATION.

Canadian Transportation Commission TRANSPORT OF DANGEROUS GOODS SHIPPING REGULATIONS: THIS MATERIAL IS NOT CONSIDERED AS DANGEROUS GOODS.

15. REGULATORY INFORMATION

SARA REPORTING REQUIREMENTS: No component of this solution is subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act.

TSCA INVENTORY STATUS: The chemicals in this compound are listed on the TSCA Inventory.

CERCLA REPORTABLE QUANTITY (RQ): Not applicable.

STATE REGULATORY INFORMATION: Chemicals in this product are covered under specific State regulations, as denoted below:

Alaska - Designated Toxic and Hazardous Substances: No.

California - Permissible Exposure Limits for Chemical Contaminants: No.

Florida - Substance List: No.

Illinois - Toxic Substance List: No.

Kansas - Section 302/313 List: No.

Massachusetts - Substance List: No.

Minnesota - List of Hazardous Substances: No.

Missouri - Employer Information/Toxic Substance List: No.

New Jersey - Right to Know Hazardous Substance List: No.

North Dakota - List of Hazardous Chemicals, Reportable Quantities: No.

Pennsylvania - Hazardous Substance List: No.

Rhode Island - Hazardous Substance List: No.

Texas - Hazardous Substance List: No.

West Virginia - Hazardous Substance List: No.

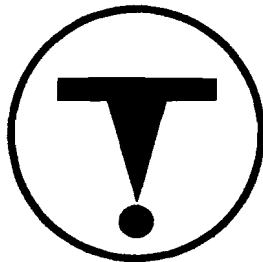
Wisconsin - Toxic and Hazardous Substances: No.

CALIFORNIA PROPOSITION 65: No component of this solution is on the California Proposition 65 lists.

LABELING (Precautionary Statements): **WARNING!** Skin and eye irritant. Avoid getting this product on your skin or in your eyes. Keep container closed. Rinse hands thoroughly after use. Wear rubber gloves and safety glasses when using this product. In case of contact with skin or eyes, rinse affected area immediately. Rinse affected eye(s) for at least 15 minutes and seek medical attention. Rinse affected skin for at least 15 minutes if reddening or discomfort occurs. Seek medical attention. Store this product in a cool, dry location.

TARGET ORGANS: Skin, eyes.

15. REGULATORY INFORMATION (continued)



16. OTHER INFORMATION

PREPARED BY:

CHEMICAL SAFETY ASSOCIATES, Inc.
9163 Chesapeake Drive, San Diego, CA 92123-1002
619/565-0302

Information contained in this MSDS refers only to the specific material designated and does not relate to any process or to use with any other materials. This information is furnished free of charge and is based on data believed to be reliable as of the date hereof. It is intended for use by persons possessing technical knowledge at their own discretion and risk. Since actual use is beyond our control, no guarantee, expressed or implied, and no liability is assumed by US Mix Products Company in conjunction with the use of this information. Nothing herein is to be construed as a recommendation to infringe any patents.

A large number of abbreviations and acronyms appear on a MSDS. Some of these which are commonly used include the following:

CAS#: This is the Chemical Abstract Service Number which uniquely identifies each constituent. It is used for computer-related searching.

EXPOSURE LIMITS IN AIR:

ACGIH - American Conference of Governmental Industrial Hygienists, a professional association which establishes exposure limits.

TLV - Threshold Limit Value - an airborne concentration of a substance which represents conditions under which it is generally believed that nearly all workers may be repeatedly exposed without adverse effect. The duration must be considered, including the 8-hour **Time Weight Average (TWA)**, the 15-minute **Short Term Exposure Limit**, and the instantaneous **Ceiling Level**. Skin adsorption effects must also be considered.

OSHA - U.S. Occupational Safety and Health Administration.

PEL - Permissible Exposure Limit - this exposure value means exactly the same as a TLV, except that it is enforceable by OSHA. The **IDLH - Immediately Dangerous to Life and Health** level represents a concentration from which one can escape within 30-minutes without suffering escape-preventing or permanent injury. The **DFG - MAK** is the Republic of Germany's Maximum Exposure Level, similar to the U.S. PEL. **NIOSH** is the National Institute of Occupational Safety and Health, which is the research arm of the U.S. Occupational Safety and Health Administration (**OSHA**). **NIOSH** issues exposure guidelines called **Recommended Exposure Levels (RELs)**. When no exposure guidelines are established, an entry of **NE** is made for reference.

FLAMMABILITY LIMITS IN AIR: Much of the information related to fire and explosion is derived from the National Fire Protection Association (**NFPA**). **LEL** - the lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source. **UEL** - the highest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source.

TOXICOLOGICAL INFORMATION

Possible health hazards as derived from human data, animal studies, or from the results of studies with similar compounds are presented. Definitions of some terms used in this section are: **LD₅₀** - Lethal Dose (solids & liquids) which kills 50% of the exposed animals; **LC₅₀** - Lethal Concentration (gases) which kills 50% of the exposed animals; **ppm** concentration expressed in parts of material per million parts of air or water; **mg/m³** concentration expressed in weight of substance per volume of air; **mg/kg** quantity of material, by weight, administered to a test subject, based on their body weight in kg. Data from several sources are used to evaluate the cancer-causing potential of the material. The sources are: **IARC** - the **International Agency for**

Research on Cancer; **NTP** - the **National Toxicology Program**; **RTECS** - the **Registry of Toxic Effects of Chemical Substances**; **OSHA** and **CAL/OSHA**. **IARC** and **NTP** rate chemicals on a scale of decreasing potential to cause human cancer with rankings from 1 to 4. Subrankings (2A, 2B, etc.) are also used. Other measures of toxicity include **TDL₀**, the lowest dose to cause a symptom; **TDo**, **LDLo**, and **LDo**, the lowest dose to cause death.

REGULATORY INFORMATION

This section explains the impact of various laws and regulations on the material. **EPA** is the U.S. Environmental Protection Agency. **WHMIS** is the Canadian Workplace Hazard information System. **DOT** and **CTC** are the U.S. Department of Transportation and the Canadian Transportation Commission, respectively. These are: **Superfund Amendments and Reauthorization Act (SARA)**; the **Toxic Substance Control Act (TSCA)**; Marine Pollutant status according to the **DOT**; California's Safe Drinking Water Act (**Proposition 65**); the **Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund)**; and various state regulations. This section also includes information on the precautionary warnings which appear on the materials package label.