

POTENTIAL HEALTH EFFECTS

EYE: Corrosive, contact causes severe eye burns.

SKIN: Can cause chemical burn.

INHALATION:

Vapors and/or aerosols which may be formed at room temperatures may be irritating to eyes and respiratory tract. Proper Ventilation is required.

INGESTION: Corrosive and may cause severe and permanent damage to mouth, throat, and stomach.

SIGNS AND SYMPTOMS OF EXPOSURE: Exposure may lead to rash or burn.

REPRODUCTIVE HAZARDS: No reproductive hazards.

CARCINOGENICITY INFORMATION: No known cancer hazards.

MISCELLANEOUS: Solutions extremely slippery when spilled.

4. FIRST AID MEASURES

EYE CONTACT FIRST AID:

Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

SKIN CONTACT FIRST AID:

Immediately wash skin with plenty of soap and water while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.

INHALATION FIRST AID:

Although this product is not known to cause respiratory problems, if breathing is difficult, remove to fresh air and provide oxygen. Get medical attention if cough or other symptoms develop.

Remove from area of exposure. Seek immediate medical attention if respiratory irritation or distress continues.

INGESTION FIRST AID:

Give milk or water. Do not induce vomiting. Get medical attention immediately.

STATEMENT OF PRACTICAL TREATMENT:

Always have plenty of water available for first aid.

NOTES TO PHYSICIAN:

Treat patient symptomatically.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

COC Flash Point: None TCC Flash Point: None

Autoignition Temperature: None

FLAMMABLE LIMITS IN AIR LEL: None UEL: None

EXTINGUISHING MEDIA: Will not burn.

FIRE & EXPLOSION HAZARDS: Material will not burn.

FIRE FIGHTING INSTRUCTIONS: Contaminated extinguishing water must be disposed of in accordance with applicable regulations.

COMBUSTION PRODUCTS: Carbon Monoxide, carbon dioxide, and other oxides may be generated as products of combustion.

6. ACCIDENTAL RELEASE MEASURES

SAFEGUARDS (PERSONNEL):

Protect skin and eyes from exposure. Wear appropriate personal protective equipment.

INITIAL CONTAINMENT:

Floor may become slippery. Contain spilled material. Wash area to prevent slipping. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

LARGE SPILLS PROCEDURE:

Forms smooth, slippery surfaces on floors, posing an accident risk. Clean up spills immediately, observing precautions in Protective Equipment section. Neutralize spill with a weak acid such as vinegar or acetic acid. Flush spill area with water to wastewater treatment system. After removal, flush contaminated area thoroughly with water. Or, absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container and dispose of in an approved sanitary landfill. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

SMALL SPILLS PROCEDURE:

Floor may become slippery. Wash with water or absorb spills with inert material. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

7. HANDLING AND STORAGE

RECOMMENDED STORAGE TEMPERATURE

Minimum: 4.4 C (39.9 F) Maximum: 48.9 C (120.0 F)

SHELF LIFE: (in original, sealed containers)

7 years @ 4.4 C 4 years @ 48.9 C

HANDLING (PERSONNEL):

Avoid contact with eyes, skin, and clothing. Empty drums should be completely drained (triple rinsed), properly bunged, and promptly returned to a drum reconditioner, or properly disposed of. Wash hands thoroughly after handling. Wash contaminated clothing before reuse.

HANDLING (PHYSICAL ASPECTS): Keep container closed to avoid contamination.

STORAGE PRECAUTIONS: Store in a cool dry place. Do not stack drums more than three pallets high. Store in a tightly closed container. Do not store with acidic materials.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS:

Good general ventilation should be sufficient to control airborne levels. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

EYE / FACE PROTECTION REQUIREMENTS:

When splashing of the material may occur, chemical goggles and a face shield are recommended.

SKIN PROTECTION REQUIREMENTS:

Wear protective gloves to minimize skin contact. Nitrile rubber and PVC are suitable protective materials; Neoprene is recommended. Wash hands thoroughly after handling.

RESPIRATORY PROTECTION REQUIREMENTS:

Under normal use conditions, with adequate ventilation, no special handling equipment is required. At elevated temperatures, > 110 F, ventilation is required.

MISCELLANEOUS: Where an apron and protective clothing.
EXPOSURE GUIDELINES: No Information Available.

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM: Liquid
COLOR: Amber
ODOR: Mild
BOILING POINT: >212 F
SOLUBILITY IN WATER: Complete
SPECIFIC GRAVITY: 1.188 (Water = 1)
BULK DENSITY: 10
MELTING/FREEZING POINT ...: 32 F
PH: 14
PH (5% B.V.): 13.4

10. STABILITY AND REACTIVITY

STABILITY: Stable.
POLYMERIZATION: Hazardous polymerization will not occur.
INCOMPATIBILITY WITH OTHER MATERIALS: Avoid contact with Acidic conditions.
May corrode glass, copper, aluminum, zinc, and their alloys.
DECOMPOSITION: Decomposition will not occur if handled and stored properly.
Product may decompose at temperatures above 270°C and release carbon, nitrogen or oxides.
CONDITIONS TO AVOID: This material is safe under normal storage and handling conditions. Avoid contact with this material and copper, aluminum, zinc, and their alloys.

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS:
Can cause severe eye irritation including burns and or permanent damage.
SKIN EFFECTS: Contact may cause skin irritation, rash or burns.
ACUTE ORAL EFFECTS:
May cause diarrhea and or vomiting along with tissue burns.
ACUTE INHALATION EFFECTS: Inhalation of this material is irritating to the nose, mouth, throat and lungs. It may also cause burns to the respiratory which may cause permanent lung damage.
REPRODUCTION AND BIRTH EFFECTS: There are no known or reported effects on reproductive function or fetal development.
CHRONIC EFFECTS:
There are no known or reported effects from repeated exposure.

12. ECOLOGICAL INFORMATION

No information available.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:
Uncleaned empty containers should be disposed of in the same manner as the contents. Dilute or neutralize with acid and discharge to an industrial sewage treatment facility. Or bury in an approved sanitary landfill. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements. For additional waste disposal information contact your local NuGenTec representative at (888) 99-NuGen.
CONTAMINATED MATERIALS: Wash contaminated clothing before reuse.
CONTAINER DISPOSAL: Containers should be triple rinsed prior to disposal.

14. TRANSPORTATION INFORMATION

PRODUCT LABEL: NuEtch E 3
D.O.T. SHIPPING NAME: Corrosive Liquid
TECHNICAL SHIPPING NAME ...: Corrosive Liquid, Potassium Hydroxide
D.O.T. HAZARD CLASS: Corrosive
UN NUMBER: 1760 Corrosive Liquid, NOS
PRODUCT RQ (LBS): 10,000
D.O.T. LABEL: Corrosive Liquid
D.O.T. PLACARD: #8
BULK CLASS: N/A
PACKAGE CLASS: 55
MISCELLANEOUS:
Export Classification, organic surface active agents (other than soap),
washing preparations and cleaning preparations, schedule B # 3402.90.5030.

15. REGULATORY INFORMATION

EEC Symbols and Indications of Danger: Corrosive (C)
R-Phrases: R36/38 - Irritating to eyes and skin.
S-Phrases: S24/25 - Avoid contact with skin and eyes.
WHMIS Hazard Symbols: Class E - Corrosive Material
Canadian Disclosure List: Potassium Hydroxide (1310-58-3)
CERCLA Hazardous Substances: Potassium Hydroxide (1310-58-3) -- RQ 1000 lb

MISCELLANEOUS INFORMATION:
This material or all of its components are listed on the Inventory of Existing Chemical Substances under the Toxic Substance Control Act (TSCA). This material or all of its components are listed on the Canadian Domestic Substances List (DSL). This material or all of its components are listed (or considered as having been notified) on the European Inventory of Existing Chemical Substances (EINECS).

16. OTHER INFORMATION

PREPARED BY: Donato Polignone
APPROVAL DATE: May 31, 2007
SUPERCEDES DATE ...: July 23, 2002
PRD NUMBER: MCE 103 (Official Copy)

ADDITIONAL INFORMATION:
The data in this Material Safety Data Sheet relates only to the specific material designated herein. It does not relate to use in combination with any other material or in any process.

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END OF MSDS
