

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: NuEtch E5 Product #: MCE105 CAS Number: Blend

**NuGeneration Technologies, LLC**

[www.nugentec.com](http://www.nugentec.com)

100 Professional Center Drive Suite 101, Rohnert Park, CA 94928 USA (707)820-4080 (product info)

1-800-424-9300 or 1-202-483-7616 (CHEMTREC: For emergencies)

## 2. COMPOSITION/INFORMATION ON INGREDIENTS:

HAZARDOUS AND/OR REGULATED COMPONENTS

<u>Chemical Name</u>	<u>Amount</u>	<u>CAS Number</u>
SODIUM HYDROXIDE	< 50.0 %	1310-73-2

COMPOSITION COMMENT: Biodegradable, Corrosive product. [High Caustic Aluminum Etchant]

HAZARDS DISCLOSURE: This product contains known hazardous materials as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200. As defined under Sara 311 and 312, this product does not contain(s) known hazardous materials.

## 3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW - DANGER!

Corrosive LIQUID: Sodium Hydroxide - Alkaline Cleaning compound, causes skin and eye irritation, rash or burns.

HMIS/NFPA Rating:

Health - 3, Flammability - 0, Reactivity - 1

NFPA/HMIS Definitions: (0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme).

### POTENTIAL HEALTH EFFECTS

EYE: Contact may cause eye irritation or permanent Tissue Burns. INGESTION: May be harmful if swallowed.

SKIN: Contact may cause skin irritation, rash or tissue burns.

INHALATION: Do not inhale aerosols of this product especially those from Aluminum etching processes.

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

CHRONIC EFFECTS: Prolonged/repeated contact may produce rash or burns.

CARCINOGENICITY INFORMATION: No known cancer hazards.

## 4. FIRST AID MEASURES

EYE CONTACT FIRST AID: Flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

SKIN CONTACT FIRST AID: Wash skin with water and remove contaminated clothing. Wash before reuse.

INHALATION FIRST AID: Remove to fresh air if questionable. Seek Medical attention if irritation persists.

INGESTION FIRST AID: Get medical attention. DO not - Induce vomiting. Give water or Milk or Calcium tablets.

STATEMENT OF PRACTICAL TREATMENT: Always have plenty of water available for first aid.

## 5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES: Autoignition Temp: None COC Flash Point: None TCC Flash Point: None

FLAMMABLE LIMITS IN AIR: LEL: None; UEL: None EXTINGUISHING MEDIA: Will not burn.

FIRE & EXPLOSION HAZARDS: Incinerating may create toxic decomposition products.

## 6. ACCIDENTAL RELEASE MEASURES

SPILLS PROCEDURE: Wash to waste treatment system with water. Or for large spills Absorb spill with inert material (dry sand), then place in a chemical waste container.

## 7. HANDLING AND STORAGE

RECOMMENDED STORAGE TEMPERATURE Minimum: 4.4C (40F) Maximum: 48.9C (120F)

SHELF LIFE(in original sealed containers): 5 years @ 4.4 C 3 years @ 48.9 C

HANDLING (PERSONNEL): Avoid contact with eyes, skin, and clothing.

ALUMINUM ETCHING: This product produces hazardous and corrosive mist of flammable and hydrogen gas aluminum etching processes. Use with adequate ventilation. And keep area away from sources of ignition.

STORAGE PRECAUTIONS: Keep from freezing. Keep container closed when not in use.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Under normal use conditions, with adequate ventilation, no special handling equipment is required.

EYE PROTECTION REQUIREMENTS: Wear protective Glasses and face-shield to minimize eye contact.

EYE / FACE / RESPIRATORY PROTECTION REQUIREMENTS: Rubber, nitrile or neoprene protective coverings.

SKIN PROTECTION REQUIREMENTS: Wear protective gloves and rubber apron to minimize skin contamination.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

FORM: Liquid

COLOR: Amber

ODOR: Mild

BOILING POINT: >212 F

SOLUBILITY IN WATER: Complete

SPECIFIC GRAVITY: 1.44 (Water = 1)

BULK DENSITY: 12.0

MELTING/FREEZING POINT: <32 F

PH: 14

PH @ 5%: 13.4      VOC = 0 g/l (concentrate)

## 10. STABILITY AND REACTIVITY

STABILITY: Stable.

POLYMERIZATION: Hazardous polymerization will not occur.

INCOMPATIBILITY WITH OTHER MATERIALS: Avoid contact with Acidic conditions. May corrode copper,

aluminum, zinc, and their alloys.      DECOMPOSITION: Decomposition will not occur if handled and stored properly.

## 11. TOXICOLOGICAL INFORMATION

EYE / SKIN EFFECTS: Contact may cause eye irritation or tissue burns.

## 12. ECOLOGICAL INFORMATION - No information available.

## 13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Treat or dispose of waste material in accordance with all local, state, and national requirements.

CONTAMINATED MATERIALS: Wash contaminated clothing before reuse.

CONTAINER DISPOSAL: Triple Rinse containers prior to disposal.

## 14. TRANSPORTATION INFORMATION

PRODUCT LABEL: **NuEtch E5**

PACKAGE CLASS: 55

D.O.T. SHIPPING NAME: Corrosive Liquid, NOS (Sodium Hydroxide)

D.O.T. HAZARD CLASS: 8

UN NUMBER: 1760

D.O.T. LABEL: Corrosive Liquid

PRODUCT RQ (LBS): 2,000

D.O.T. Packing Group: III

BULK CLASS: N/A

## 15. REGULATORY INFORMATION

FDA (FOOD AND DRUG ADMINISTRATION): This Product Meets FDA/USDA requirements for cleaning in the food processing industry.

EEC Symbols and Indications of Danger: Corrosive (C)

WHMIS Hazard Symbols: Class E - Corrosive Material

R-Phrases: R35 - Causes severe burns.

S-Phrases: S24/25 - Avoid contact with skin and eyes.

Canadian Disclosure List      Sodium Hydroxide (1310-73-2)

SARA Title III - Section 313      NONE

SC Toxic Air Pollutants List      Sodium Hydroxide (1310-73-2)

CERCLA Hazardous Substances      Sodium Hydroxide (1310-73-2) -- RQ 1000 lb

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

PRD NUMBER: MCE105 (Official Copy)

APPROVED BY: Milan Malek

TITLE: VP Research & Development

APPROVAL DATE: March 3, 2004

SUPERCEDES DATE: July 23, 2002

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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