SAFETY DATA SHEET

1. Identification

Material name: EUCON HC - BULK GALLONS
Material: 715 99

Recommended use and restriction on use
   Recommended use: Additive
   Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information
EUCLID CHEMICAL COMPANY
19218 REDWOOD ROAD
CLEVELAND OH 44110
US

Contact person: EH&S Department
Telephone: 216-531-9222
Emergency telephone number: 1-800-424-9300 (US); 1-613-996-6666 (Canada)

2. Hazard(s) identification

Hazard Classification
   Not classified

Label Elements
   Hazard Symbol: No symbol
   Signal Word: No signal word.
   Hazard Statement: not applicable
   Precautionary Statements: not applicable

Other hazards which do not result in GHS classification: None.

3. Composition/information on ingredients

Mixtures

| Chemical Identity   | CAS number | Content in percent (%) |* |
|---------------------|------------|------------------------|
| Triethanolamine     | 102-71-6   | 5 - <10%                |

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Ingestion: Call a POISON CENTER/doctor/.../if you feel unwell. Rinse mouth.

800000051729
Inhalation: Move to fresh air.

Skin Contact: Wash skin thoroughly with soap and water. Get medical attention if symptoms occur.

Eye contact: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists: Get medical advice/attention.

Most important symptoms/effects, acute and delayed

Symptoms: May cause skin and eye irritation.

Indication of immediate medical attention and special treatment needed

Treatment: Symptoms may be delayed.

5. Fire-fighting measures

General Fire Hazards: No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: No data available.

Methods and material for containment and cleaning up: Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

Notification Procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.
Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

7. Handling and storage

Precautions for safe handling: Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities: Store away from incompatible materials. Store in original tightly closed container.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>type</th>
<th>Exposure Limit Values</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triethanolamine</td>
<td>TWA</td>
<td>5 mg/m3</td>
<td>US. ACGIH Threshold Limit Values (2011)</td>
</tr>
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<tbody>
<tr>
<td>Triethanolamine</td>
<td>TWA</td>
<td>0.5 ppm 3.1 mg/m3</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td>Triethanolamine</td>
<td>TWA</td>
<td>5 mg/m3</td>
<td>Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)</td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls: Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

Individual protection measures, such as personal protective equipment

General information: 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 and eye protection may be needed in special circumstances, such as poorly ventilated spaces, heating, evaporation of liquids from large surfaces, spraying of mists, mechanical generation of dusts, drying of solids, etc.

Eye/face protection: Wear safety glasses with side shields (or goggles).
Skin Protection
   Hand Protection: Use suitable protective gloves if risk of skin contact.
   Other: Wear suitable protective clothing.
Respiratory Protection: In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.
Hygiene measures: Observe good industrial hygiene practices.

9. Physical and chemical properties

Appearance
   Physical state: liquid
   Form: liquid
   Color: Yellow
   Odor: Mild
   Odor threshold: No data available.
   pH: 8 - 10
   Melting point/freezing point: No data available.
   Initial boiling point and boiling range: 102 °C 216 °F
   Flash Point: No data available.
   Evaporation rate: Slower than Ether
   Flammability (solid, gas): No
   Upper/lower limit on flammability or explosive limits
      Flammability limit - upper (%): No data available.
      Flammability limit - lower (%): No data available.
      Explosive limit - upper (%): No data available.
      Explosive limit - lower (%): No data available.
   Vapor pressure: No data available.
   Vapor density: Vapors are heavier than air and may travel along the floor and in the bottom of containers.
   Relative density: +/- 0.01 1.17
   Solubility(ies)
      Solubility in water: Soluble
      Solubility (other): No data available.
   Partition coefficient (n-octanol/water): No data available.
   Auto-ignition temperature: No data available.
   Decomposition temperature: No data available.
   Viscosity: No data available.

10. Stability and reactivity

   Reactivity: No data available.
   Chemical Stability: Material is stable under normal conditions.
Possibility of hazardous reactions: No data available.

Conditions to avoid: Avoid heat or contamination.


Hazardous Decomposition Products: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Toxicological information

Information on likely routes of exposure
Ingestion: May be ingested by accident. Ingestion may cause irritation and malaise.
Inhalation: In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact: May be harmful in contact with skin.
Eye contact: Eye contact is possible and should be avoided.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)
Oral Product: No data available.
Dermal Product: ATEmix: 2,042.91 mg/kg
Inhalation Product: No data available.

Repeated dose toxicity Product: No data available.

Skin Corrosion/Irritation Product: No data available.
Specified substance(s): Triethanolamine in vivo (Rabbit): Experimental result, Key study

Serious Eye Damage/Eye Irritation Product: No data available.
Specified substance(s):
   Triethanolamine in vivo (Rabbit, 24 - 72 hrs): Irritating

Respiratory or Skin Sensitization
   Product: No data available.

Carcinogenicity
   Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:
   No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:
   No carcinogenic components identified

   No carcinogenic components identified

Germ Cell Mutagenicity
   In vitro
      Product: No data available.

   In vivo
      Product: No data available.

Reproductive toxicity
   Product: No data available.

Specific Target Organ Toxicity - Single Exposure
   Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure
   Product: No data available.

Aspiration Hazard
   Product: No data available.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

   Acute hazards to the aquatic environment:

   Fish
      Product: No data available.
Specified substance(s): Triethanolamine
LC 50 (Fathead minnow (Pimephales promelas), 96 h): 10,610 - 13,010 mg/l
Mortality

Aquatic Invertebrates
Product: No data available.

Specified substance(s): Triethanolamine
EC 50 (Water flea (Ceriodaphnia dubia), 48 h): 565.2 - 658.3 mg/l
Intoxication

Chronic hazards to the aquatic environment:

Fish
Product: No data available.

Aquatic Invertebrates
Product: No data available.

Toxicity to Aquatic Plants
Product: No data available.

Persistence and Degradability

Biodegradation
Product: No data available.

BOD/COD Ratio
Product: No data available.

Bioaccumulative Potential

Bioconcentration Factor (BCF)
Product: No data available.

Partition Coefficient n-octanol / water (log Kow)
Product: No data available.

Specified substance(s): Triethanolamine
Log Kow: -1.00

Mobility in Soil: No data available.

Other Adverse Effects: No data available.

13. Disposal considerations
Disposal instructions: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated Packaging: No data available.

14. Transport information

TDG:
Not Regulated

CFR / DOT:
Not Regulated

IMDG:
Not Regulated

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Reportable quantity</th>
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<tr>
<td>Sodium hydroxide</td>
<td>1000 lbs.</td>
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Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Not listed.

SARA 302 Extremely Hazardous Substance
None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

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<tr>
<td>[1,1'-Biphenyl]-2-ol, sodium salt (1:1)</td>
<td>1000 lbs.</td>
</tr>
</tbody>
</table>
SARA 311/312 Hazardous Chemical

Chemical Identity | Threshold Planning Quantity
--- | ---
Triethanolamine | 500 lbs

SARA 313 (TRI Reporting)
None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)
None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):
None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65
This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

US. New Jersey Worker and Community Right-to-Know Act

Chemical Identity
Triethanolamine

US. Massachusetts RTK - Substance List

Chemical Identity
Triethanolamine
[1,1'-Biphenyl]-2-ol, sodium salt (1:1)

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity
Triethanolamine

US. Rhode Island RTK
No ingredient regulated by RI Right-to-Know Law present.

Other Regulations:

Regulatory VOC (less water and exempt solvent): 0 g/l
VOC Method 310: 0.00 %

Inventory Status:

Australia AICS: One or more components in this product are not listed on or exempt from the Inventory.

Canada DSL Inventory List: All components in this product are listed on or exempt from the Inventory.

EINECS, ELINCS or NLP: One or more components in this product are not listed on or exempt from the Inventory.

Japan (ENCS) List: One or more components in this product are
### China Inv. Existing Chemical Substances:
One or more components in this product are not listed on or exempt from the Inventory.

### Korea Existing Chemicals Inv. (KECI):
One or more components in this product are not listed on or exempt from the Inventory.

### Canada NDSL Inventory:
One or more components in this product are not listed on or exempt from the Inventory.

### Philippines PICCS:
One or more components in this product are not listed on or exempt from the Inventory.

### US TSCA Inventory:
All components in this product are listed on or exempt from the Inventory.

### New Zealand Inventory of Chemicals:
One or more components in this product are not listed on or exempt from the Inventory.

### Japan ISHL Listing:
One or more components in this product are not listed on or exempt from the Inventory.

### Japan Pharmacopoeia Listing:
One or more components in this product are not listed on or exempt from the Inventory.

### 16. Other information, including date of preparation or last revision

**Revision Date:** 11/10/2016

**Version #:** 2.0

**Further Information:** No data available.

**Disclaimer:** For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.