SAFETY DATA SHEET

1. Identification

Material name: EUCON AEA-92 - BULK GALLONS
Material: 011A 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

Health Hazards

<table>
<thead>
<tr>
<th>Serious Eye Damage/Eye Irritation</th>
<th>Category 1</th>
</tr>
</thead>
</table>

Unknown toxicity - Health

<table>
<thead>
<tr>
<th>Acute toxicity, oral</th>
<th>99.81 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity, dermal</td>
<td>99.83 %</td>
</tr>
<tr>
<td>Acute toxicity, inhalation, vapor</td>
<td>100 %</td>
</tr>
<tr>
<td>Acute toxicity, inhalation, dust or mist</td>
<td>100 %</td>
</tr>
</tbody>
</table>

Environmental Hazards

<table>
<thead>
<tr>
<th>Acute hazards to the aquatic environment</th>
<th>Category 3</th>
</tr>
</thead>
</table>

Unknown toxicity - Environment

<table>
<thead>
<tr>
<th>Acute hazards to the aquatic environment</th>
<th>93.13 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic hazards to the aquatic environment</td>
<td>100 %</td>
</tr>
</tbody>
</table>

Label Elements

Hazard Symbol:
Signal Word: Danger

Hazard Statement: Causes serious eye damage. Harmful to aquatic life.

Precautionary Statement:
Prevention: Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment.

Response: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

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

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>CAS number</th>
<th>Content in percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium (C14-16) Olefin Sulfonate</td>
<td>68439-57-6</td>
<td>5 - 10%</td>
</tr>
</tbody>
</table>

* 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.

Inhalation: Move to fresh air.

Skin Contact: Wash skin thoroughly with soap and water. If skin irritation occurs: Get medical advice/attention.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately.

Most important symptoms/effects, acute and delayed

Symptoms: Extreme irritation of eyes and mucous membranes, including burning and tearing.

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:  Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water sources or sewer.

7. Handling and storage

Precautions for safe handling:  Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Do not get in eyes. Wash hands thoroughly after handling.

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
None of the components have assigned exposure limits.

**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:**
Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Eye/face protection:**
Wear a full-face respirator, if needed. Wear safety glasses with side shields (or goggles) and a face shield.

**Skin Protection**

**Hand Protection:**
Use suitable protective gloves if risk of skin contact.

**Other:**
No data available.

**Respiratory Protection:**
In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

**Hygiene measures:**
Do not get in eyes. Observe good industrial hygiene practices.

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### 9. Physical and chemical properties

<table>
<thead>
<tr>
<th><strong>Appearance</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical state:</strong></td>
</tr>
<tr>
<td><strong>Form:</strong></td>
</tr>
<tr>
<td><strong>Color:</strong></td>
</tr>
<tr>
<td><strong>Odor:</strong></td>
</tr>
<tr>
<td><strong>Odor threshold:</strong></td>
</tr>
<tr>
<td><strong>pH:</strong></td>
</tr>
<tr>
<td><strong>Melting point/freezing point:</strong></td>
</tr>
<tr>
<td><strong>Initial boiling point and boiling range:</strong></td>
</tr>
<tr>
<td><strong>Flash Point:</strong></td>
</tr>
<tr>
<td><strong>Evaporation rate:</strong></td>
</tr>
<tr>
<td><strong>Flammability (solid, gas):</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Upper/lower limit on flammability or explosive limits</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flammability limit - upper (%):</strong></td>
</tr>
<tr>
<td><strong>Flammability limit - lower (%):</strong></td>
</tr>
<tr>
<td><strong>Explosive limit - upper (%):</strong></td>
</tr>
<tr>
<td><strong>Explosive limit - lower (%):</strong></td>
</tr>
<tr>
<td><strong>Vapor pressure:</strong></td>
</tr>
<tr>
<td><strong>Vapor density:</strong></td>
</tr>
</tbody>
</table>

800000050129
Relative density: +/- 0.01 1.015
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: Causes mild skin irritation.
  Eye contact: Causes serious eye damage.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)
  Oral Product: No data available.
  Dermal Product: No data available.
  Inhalation Product: No data available.
Repeated dose toxicity
Product: No data available.

Skin Corrosion/Irritation
Product: No data available.

Serious Eye Damage/Eye Irritation
Product: No data available.

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.

Aquatic Invertebrates
Product: No data available.

Specified substance(s):
- Sodium (C14-16) Olefin Sulfonate
  EC 50 (Water flea (Ceriodaphnia dubia), 48 h): 4.14 - 4.95 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.
Mobility in Soil: No data available.
Other Adverse Effects: Harmful to aquatic organisms.

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>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>1000 lbs.</td>
</tr>
</tbody>
</table>

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate (Acute) Health Hazards

SARA 302 Extremely Hazardous Substance None present or none present in regulated quantities.
SARA 304 Emergency Release Notification

**Chemical Identity** | **Reportable quantity**
--- | ---
Sodium hydroxide | 1000 lbs.
[1,1'-Biphenyl]-2-ol, sodium salt (1:1) |

SARA 311/312 Hazardous Chemical

**Chemical Identity** | **Threshold Planning Quantity**
--- | ---
Sodium (C14-16) Olefin Sulfonate | 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**
No ingredient regulated by NJ Right-to-Know Law present.

**US. Massachusetts RTK - Substance List**

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

**US. Pennsylvania RTK - Hazardous Substances**
No ingredient regulated by PA Right-to-Know Law present.

**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
Japan (ENCS) List: One or more components in this product are not listed on or exempt from the Inventory.

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: 06/24/2016

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.