SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product identifier
Chemical Name
Trade name
CAS No.

Relevant identified uses of the substance or mixture and uses advised against
Identified use(s)
Uses advised against

Details of the supplier of the safety data sheet
Company Identification
Telephone
Telephone (Product Information)
Fax
E-Mail (competent person)

Emergency telephone number
Emergency Phone No.

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture
OSHA HCS (29 CFR 1910.1200)

Label elements
Hazard Symbol

Signal word(s)
Hazard statement(s)
Precautionary statement(s)

Other hazards
Additional Information

Eye Irrit. 2b; May form combustible dust concentrations in air.
Causes eye irritation. May form combustible dust concentrations in air
Wash hands thoroughly after handling. Keep work areas free of dust accumulation. Enclosed material handling equipment (conveyors, ventilation, precipitators, etc.) must be designed and maintained so as not to be a source of ignition.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
For professional users only.
Toxic to aquatic life. Toxic to aquatic life with long lasting effects. Not classified as PBT or vPvB.
None
**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

<table>
<thead>
<tr>
<th>Composition/information on ingredients</th>
<th>%W/W</th>
<th>CAS No.</th>
<th>Hazard statement(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkylated naphthalene sulfonate, sodium salt</td>
<td>&gt;90%</td>
<td>Trade Secret</td>
<td>Causes eye irritation. May form combustible dust concentrations in air</td>
</tr>
<tr>
<td>Proprietary surfactant 1</td>
<td>&lt;2.5%</td>
<td>Trade Secret</td>
<td>Causes skin irritation. Causes serious eye irritation. Toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>Proprietary surfactant 2</td>
<td>&lt;4.5%</td>
<td>Trade Secret</td>
<td>Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>Water</td>
<td>&lt;5%</td>
<td>7732-18-5</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

Additional Information – Substances in the product which may present a health or environmental hazard, or which have been assigned occupational exposure limits, are detailed below.

- Ethylene Oxide (CAS No. 75-21-8) - May accumulate in the head space of drums.

**SECTION 4: FIRST AID MEASURES**

**Description of first aid measures**

**Inhalation**
Remove to fresh air and keep at rest in a position comfortable for breathing. If breathing is laboured, administer oxygen. If breathing has stopped, apply artificial respiration.

**Skin Contact**
Wash affected skin with plenty of water. Continue to wash the affected area for at least 15 minutes. If skin irritation occurs: Get medical advice/attention.

**Eye Contact**
Immediately flush eyes for at least 15 minutes. Hold eye open and rinse slowly and gently with water. Continue rinsing. If irritation develops and persists, get medical attention.

**Ingestion**
Drink two glasses of water. Call a physician. If swallowed, and the victim is conscious and alert, induce vomiting immediately, as directed by medical personnel.

**Most important symptoms and effects, both acute and delayed**
None

**Indication of any immediate medical attention and special treatment needed**
None

**SECTION 5: FIRE-FIGHTING MEASURES**

**Extinguishing media**
- Suitable Extinguishing Media
  - Extinguish with waterspray, dry chemical, sand or carbon dioxide or foam.
- Unsuitable Extinguishing Media
  - None anticipated.

**Special hazards arising from the substance or mixture**
None anticipated.

**Advice for fire-fighters**
Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Water spray should be used to cool containers.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**
Remove all ignition sources. Avoid breathing dust. Put on protective equipment before entering danger area.
Environmental precautions
None anticipated.

Methods and material for containment and cleaning up
Sweep spilled substances into containers. Flush the contaminated area with large amounts of water. Collect spillage and transfer to a container for disposal.

Reference to other sections
None

Additional Information
None

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling
Keep container tightly closed. Ground/bond container and receiving equipment. Do not get in eyes. This product may contain trace levels of Ethylene oxide (CAS No. 75-21-8), which may accumulate in the headspace of containers. Establish monitoring systems for exposure assessment to comply with OSHA standard 29 CFR 1910.1047.

Conditions for safe storage, including any incompatibilities
- Storage Temperature
  Store at room temperature.
- Incompatible materials
  Keep away from oxidising agents. Keep container tightly closed and dry.

Specific end use(s)
Surfactant

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th></th>
<th>PEL (OSHA)</th>
<th>TLV (ACGIH)</th>
<th>PEL (OSHA)</th>
<th>TLV (ACGIH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene Oxide*</td>
<td>75-21-8</td>
<td>1 ppm</td>
<td>1 ppm</td>
<td>5 ppm</td>
</tr>
</tbody>
</table>

* May accumulate in the headspace of drums. OSHA Action Level = 0.5 ppm as an 8-hour time-weighted average. Refer to OSHA 29 CFR 1910.1047.

Recommended monitoring method
NIOSH 1614

Exposure controls

Appropriate engineering controls
Not normally required.

Personal protection equipment
Eye/face protection
Wear protective eyewear (goggles, face shield, or safety glasses).

Skin protection (Hand protection/ Other)
The following to be used as necessary: Gloves (Neoprene or Natural rubber).

Respiratory protection
No personal respiratory protective equipment normally required. Avoid generation of mist. An approved dust mask should be worn if dust/mist is generated during handling.

Thermal hazards
Use gloves with insulation for thermal protection, when needed.
Environmental Exposure Controls

Do not allow to enter drains, sewers or watercourses.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Powder/solid</td>
</tr>
<tr>
<td>Colour</td>
<td>Tan</td>
</tr>
<tr>
<td>Odour</td>
<td>Hydrocarbon</td>
</tr>
<tr>
<td>Odour Threshold (ppm)</td>
<td>Not available</td>
</tr>
<tr>
<td>pH (Value)</td>
<td>7.5 - 10.5 (5% aqueous solution)</td>
</tr>
<tr>
<td>Melting Point (°C) / Freezing Point (°C)</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling point/bubbling range (°C)</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash Point (°C)</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation rate (butyl acetate=1)</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available</td>
</tr>
<tr>
<td>Explosive limit ranges</td>
<td>May form combustible dust concentrations in air</td>
</tr>
<tr>
<td>Vapour Pressure (Pascal)</td>
<td>1.167 X 10^-7 (8.76 X 10^-10 mm HG) @ 25 °C</td>
</tr>
<tr>
<td>Vapour Density (Air=1)</td>
<td>Not available</td>
</tr>
<tr>
<td>Density (g/ml)</td>
<td>Not available</td>
</tr>
<tr>
<td>Solubility (Water)</td>
<td>Soluble</td>
</tr>
<tr>
<td>Solubility (Other)</td>
<td>Not available</td>
</tr>
<tr>
<td>Partition Coefficient (n-Octanol/water)</td>
<td>Not available</td>
</tr>
<tr>
<td>Auto Ignition Temperature (°C)</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition Temperature (°C)</td>
<td>Not available</td>
</tr>
<tr>
<td>Kinematic Viscosity (cSt) @ 40°C</td>
<td>Not available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not oxidising</td>
</tr>
<tr>
<td>Other information</td>
<td>Not available</td>
</tr>
</tbody>
</table>

**SECTION 10: STABILITY AND REACTIVITY**

Reactivity Stable under normal conditions.

Chemical stability Stable.

Possibility of hazardous reactions None anticipated.

Conditions to avoid Incompatible materials.

Incompatible materials Reacts with oxidizers and acids.

Hazardous Decomposition Product(s) Carbon monoxide, Carbon dioxide, Sulphur oxides,

**SECTION 11: TOXICOLOGICAL INFORMATION**

Exposure routes: Inhalation, Skin Contact, Eye Contact

Substances in preparations / mixtures

Alkylated naphthalene sulfonate, sodium salt (Trade secret) - By analogy with similar materials:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>Oral: LD50 &gt; 2000 mg/kg-bw</td>
</tr>
<tr>
<td>Irritation/Corrosivity</td>
<td>Causes eye irritation.</td>
</tr>
<tr>
<td>Sensitization</td>
<td>No information available</td>
</tr>
<tr>
<td>Repeated dose toxicity</td>
<td>No information available</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>No information available</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>No information available</td>
</tr>
<tr>
<td>Toxicity for reproduction</td>
<td>No information available</td>
</tr>
</tbody>
</table>

This product may contain trace levels of Ethylene oxide (CAS No. 75-21-8), which may accumulate in the head space of containers. Establish monitoring systems for exposure assessment to comply with OSHA standard 29 CFR 1910.1047. Ethylene oxide is a
known human carcinogen by NTP and a suspected human carcinogen by ACGIH®.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity - Substances in preparations / mixture

Alkylated naphthalene sulfonate, sodium salt (CAS No. Trade secret)
  Short term No information available
  Long Term No information available

Proprietary Surfactant 1 (CAS No. Trade Secret)
  Short term EC50 (48 hour) = 1.821 mg/L (Daphnia magna, QSAR)
           EC50 (48 hour) = 20 mg/L (Pseudokirchnerella subcapitata)
  Long Term No information available
  Persistence and degradability This product is predicted to degrade in soil and water.
  Bioaccumulative potential The product has low potential for bioaccumulation.
  Mobility in soil The product is predicted to have low mobility in soil.
  Results of PBT and vPvB assessment Not classified as PBT or vPvB.
  Other adverse effects None known.

Proprietary Surfactant 2 (CAS No. Trade Secret)
  Short term LC50 (96 hour) = 0.323 mg/L (Pimephales promelas)
           LC50 (48 hour) = 0.716 mg/L (Ceriodaphnia dubia)
           EC50 (72 hour) = 2.02 mg/L (Pseudokirchnerella subcapitata)
  Long Term NOEC (21 days) = 0.1 mg/L (Daphnia magna)
           EC10 (72 hour) = 1.22 mg/L (Pseudokirchnerella subcapitata)
  Persistence and degradability This product is predicted to degrade in soil and water.
  Bioaccumulative potential The product has low potential for bioaccumulation.
  Mobility in soil The product is predicted to have low mobility in soil.
  Results of PBT and vPvB assessment Not classified as PBT or vPvB.
  Other adverse effects None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods Incinerate under approved controlled conditions, in accordance with local, state or national legislation. Consult an accredited waste disposal contractor or the local authority for advice.

Additional Information None known.

SECTION 14: TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th></th>
<th>Land transport (U.S. DOT)</th>
<th>Sea transport (IMDG)</th>
<th>Air transport (ICAO/IATA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
<td>3077</td>
<td>3077</td>
<td>3077</td>
</tr>
<tr>
<td>Proper Shipping Name</td>
<td>Environmentally hazardous substance, solid, n.o.s. (nonylphenol ethoxylate)</td>
<td>Environmentally hazardous substance, solid, n.o.s. (nonylphenol ethoxylate)</td>
<td>Environmentally hazardous substance, solid, n.o.s. (nonylphenol ethoxylate)</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Packing group</td>
<td>III</td>
<td>III</td>
<td>III</td>
</tr>
<tr>
<td>Hazard label(s)</td>
<td>Marine Pollutant</td>
<td>Marine Pollutant</td>
<td>Marine Pollutant</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Special precautions for user</td>
<td>None assigned</td>
<td>None assigned</td>
<td>None assigned</td>
</tr>
</tbody>
</table>

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:
SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture:

TSCA (Toxic Substance Control Act) - Inventory Status: All components listed or polymer exempt.

Canada Domestic Substance List (NDSL/DSL)
- Listed NDSL: Alkylated naphthalene sulfonate, sodium salt
- Listed DSL: Proprietary surfactants

Designated Hazardous Substances and Reportable Quantities (40 CFR 302.4):

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Typical %wt.</th>
<th>RQ (Pounds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>----</td>
<td>----</td>
<td>----</td>
</tr>
</tbody>
</table>

SARA 311/312 - Hazard Categories:
- Fire
- Sudden Release
- Reactivity
- Immediate (acute)
- Chronic (delayed)

SARA 313 - Toxic Chemicals (40 CFR 372):

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Typical %wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>----</td>
<td>----</td>
</tr>
</tbody>
</table>

SARA 302 - Extremely Hazardous Substances(40 CFR 355):

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Typical %wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>----</td>
<td>----</td>
</tr>
</tbody>
</table>

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16.

Date of preparation: August 29, 2014

Additional Information:

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