1. Identification

Product identifier ZELEC 887
Other means of identification
Product code 7211
Recommended use Surfactant
Recommended restrictions For industrial use only.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer
Company name Stepan Company
Address 22 West Frontage Road
Northfield, IL 60093 USA
Telephone General 1-847-446-7500
E-mail Not available.
Emergency phone number Medical 1-800-228-5635
Chemtrec 1-800-424-9300
Chemtrec Int'l +1 703-527-3887

2. Hazard(s) identification

Physical hazards Not classified.
Health hazards Not classified.
Environmental hazards Not classified.
OSHA defined hazards Not classified.

Label elements

Hazard symbol None.
Signal word None.
Hazard statement The mixture does not meet the criteria for classification.
Precautionary statement
Prevention Observe good industrial hygiene practices.
Response Wash hands after handling.
Storage Store away from incompatible materials.
Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information Not applicable.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>-Octanoic acid, decanoic acid, trimethylolpropane ester</td>
<td></td>
<td>11138-60-6</td>
<td>100</td>
</tr>
</tbody>
</table>

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact Rinse with water. Get medical attention if irritation develops and persists.
Ingestion Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed
Indication of immediate medical attention and special treatment needed
General information

Direct contact with eyes may cause temporary irritation.

Treat symptomatically.

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media
Unsuitable extinguishing media
Specific hazards arising from the chemical
Special protective equipment and precautions for firefighters
Fire fighting equipment/instructions
Specific methods
General fire hazards

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Do not use water jet as an extinguisher, as this will spread the fire.

During fire, gases hazardous to health may be formed.

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Move containers from fire area if you can do so without risk.

Use standard firefighting procedures and consider the hazards of other involved materials.

No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Methods and materials for containment and cleaning up
Environmental precautions

Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling
Conditions for safe storage, including any incompatibilities

Observe good industrial hygiene practices.

Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits
Biological limit values
Appropriate engineering controls

No exposure limits noted for ingredient(s).

No biological exposure limits noted for the ingredient(s).

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.

Individual protection measures, such as personal protective equipment
Eye/face protection
Skin protection
Hand protection
Other
Respiratory protection
Thermal hazards
General hygiene considerations

If contact is likely, safety glasses with side shields are recommended.

Wear protective gloves.

Wear suitable protective clothing.

In case of insufficient ventilation, wear suitable respiratory equipment.

Wear appropriate thermal protective clothing, when necessary.

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Material name: ZELEC 887
Material ID: 2225    Product code: 7211    Version #: 02    Revision date: 01-18-2016    Print date: 01-18-2016
9. Physical and chemical properties

Appearance
  - Physical state: Liquid.
  - Form: Liquid.
  - Color: Water white to light yellow.

Odor
  - Odor: Not available.
  - Odor threshold: Not available.

pH
  - Not available.

Melting point/freezing point
  - Not available.

Initial boiling point and boiling range
  - Not available.

Flash point
  - > 201.0 °F (> 93.9 °C) Pensky-Martens Closed Cup

Evaporation rate
  - Estimated slower than ethyl ether

Flammability (solid, gas)
  - Not available.

Upper/lower flammability or explosive limits
  - Flammability limit - lower (%): Not available.
  - Flammability limit - upper (%): Not available.
  - Explosive limit - lower (%): Not available.
  - Explosive limit - upper (%): Not available.

Vapor pressure
  - Not applicable

Vapor density
  - Estimated heavier than air

Relative density
  - Not available.

Solubility(ies)
  - Solubility (water): Not available.

Auto-ignition temperature
  - Not available.

Decomposition temperature
  - Not available.

Viscosity
  - 25 cP @ 25C

Other information
  - Density
    - 7.90 lb/gal
  - Pour point
    - -56.2 °F (-49 °C)

10. Stability and reactivity

Reactivity
  - The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability
  - Material is stable under normal conditions.

Possibility of hazardous reactions
  - No dangerous reaction known under conditions of normal use.

Conditions to avoid
  - Avoid temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible materials
  - Strong oxidizing agents.

Hazardous decomposition products
  - No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure
  - Inhalation
    - No adverse effects due to inhalation are expected.
  - Skin contact
    - No adverse effects due to skin contact are expected.
  - Eye contact
    - Direct contact with eyes may cause temporary irritation.
  - Ingestion
    - Expected to be a low ingestion hazard.
  - Symptoms related to the physical, chemical and toxicological characteristics
    - Direct contact with eyes may cause temporary irritation.
Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZELEC 887</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rabbit</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>&gt; 5000 mg/kg</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation

Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation

Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization

Not available.

Skin sensitization

This product is not expected to cause skin sensitization.

Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Reproductive toxicity

This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure

Not applicable.

Specific target organ toxicity - repeated exposure

Not applicable.

Aspiration hazard

Not applicable.

12. Ecological information

Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

<table>
<thead>
<tr>
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<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZELEC 887</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aquatic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Algae</td>
<td>EC50</td>
<td>&gt; 1018 mg/l, 72 hours</td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>&gt; 2570 mg/l, 48 hours</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>&gt; 1035 mg/l, 96 hours</td>
</tr>
</tbody>
</table>

Persistence and degradability

The product is not readily biodegradable.

Bioaccumulative potential

No data available.

Mobility in soil

No data available.

Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazardous waste code

The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT
Not regulated as dangerous goods.

IATA
Not regulated as dangerous goods.

IMDG
Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not available.

15. Regulatory information

US federal regulations

CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed.

SARA 304 Emergency release notification
Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312 Hazardous chemical
Yes

SARA 313 (TRI reporting)
Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act (SDWA)
Not regulated.

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)
Not listed.

US. Massachusetts RTK - Substance List
Not regulated.

US. Pennsylvanion Worker and Community Right-to-Know Law
Not listed.

US. Rhode Island RTK
Not regulated.

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
</tbody>
</table>
### Country(s) or region | Inventory name                                                                 | On inventory (yes/no)* |
---|---|---|
China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes |
Europe | European List of Notified Chemical Substances (ELINCS) | No |
Japan | Inventory of Existing and New Chemical Substances (ENCS) | Yes |
Korea | Existing Chemicals List (ECL) | Yes |
New Zealand | New Zealand Inventory | Yes |
Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | Yes |
United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |

*"Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

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

**Issue date** 06-16-2015

**Revision date** 01-18-2016

**Version #** 02

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**Revision information**

Physical & Chemical Properties: Multiple Properties

Regulatory information: California Prop 65