1. Identification

Product identifier STEPANQUAT 8188

Other means of identification
Product code 3341
Recommended use Surfactant
Recommended restrictions For industrial use only.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer
Company name Stepan México, S.A. de C.V.
Address Avenida Uniones #150
H. Matamoros, Tam. 87316
México

Telephone
General (Mexico) +52 868-810-9300
General (USA) 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 Flammable liquids Category 3
Health hazards Acute toxicity, oral Category 3
Acute toxicity, inhalation Category 2
Skin corrosion/irritation Category 1
Serious eye damage/eye irritation Category 1

Environmental hazards
Hazardous to the aquatic environment, acute hazard Category 1
Hazardous to the aquatic environment, long-term hazard Category 3

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement Flammable liquid and vapor. Toxic if swallowed. Causes severe skin burns and eye damage. Causes serious eye damage. Fatal if inhaled. Very toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Precautionary statement
Prevention
Keep container tightly closed. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only outdoors or in a well-ventilated area. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Wear respiratory protection.
Response
If swallowed: Immediately call a poison center/doctor. If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. 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. Specific treatment is urgent (see this label). Wash contaminated clothing before reuse. In case of fire: Use appropriate media to extinguish. Collect spillage.

Storage

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

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>_Di-(C8-10)-alkyl dimethyl ammonium chlorides</td>
<td></td>
<td>68424-95-3</td>
<td>80 - &lt; 90</td>
</tr>
<tr>
<td>Ethanol</td>
<td></td>
<td>64-17-5</td>
<td>10 - &lt; 20</td>
</tr>
<tr>
<td>_Decyl methyl octyl amine</td>
<td></td>
<td>22020-14-0</td>
<td>1 - &lt; 3</td>
</tr>
</tbody>
</table>

4. First-aid measures

Inhalation
Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician or poison control center immediately.

Skin contact
Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

Eye contact
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

Ingestion
Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting.

Most important symptoms/effects, acute and delayed
Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Indication of immediate medical attention and special treatment needed
If the product is ingested, probable mucosal damage may contraindicate the use of gastric lavage. Treat the affected person appropriately.

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

5. Fire-fighting measures

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

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

Specific hazards arising from the chemical
Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters
Firefighters should wear full protective clothing including self contained breathing apparatus.

Fire fighting equipment/instructions
In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

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

General fire hazards
Flammable liquid and vapor.
6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Immediately evacuate personnel to safe areas. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up
Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools.

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. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent product from entering drains. 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.

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

Environmental precautions
Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling
Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe vapor. Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not taste or swallow. Avoid prolonged exposure. Do not get this material on clothing. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains.

Conditions for safe storage, including any incompatibilities
DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL. Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Keep in an area equipped with sprinklers.

8. Exposure controls/personal protection

Occupational exposure limits

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol (CAS 64-17-5)</td>
<td>PEL</td>
<td>1900 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1000 ppm</td>
</tr>
</tbody>
</table>

US. ACGIH Threshold Limit Values

<table>
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<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol (CAS 64-17-5)</td>
<td>STEL</td>
<td>1000 ppm</td>
</tr>
</tbody>
</table>

US. NIOSH: Pocket Guide to Chemical Hazards

<table>
<thead>
<tr>
<th>Components</th>
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<th>Value</th>
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</thead>
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<tr>
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<td>TWA</td>
<td>1900 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1000 ppm</td>
</tr>
</tbody>
</table>

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

Appropriate engineering controls
Ensure adequate ventilation, especially in confined areas. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection
Wear safety glasses with side shields (or goggles) and a face shield.
Skin protection
Hand protection
  Wear appropriate chemical resistant gloves.
Other
  Wear appropriate chemical resistant clothing. Wear protective gloves.
Respiratory protection
  If ventilation is not sufficient to effectively prevent buildup of aerosols or vapors, appropriate NIOSH/MSHA respiratory protection must be provided.
Thermal hazards
  Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations
  When using, do not eat, drink or smoke. 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.

9. Physical and chemical properties

Appearance
  Clear.

Physical state
  Liquid.

Form
  Not available.

Color
  Not available.

Odor
  Not available.

Odor threshold
  Not available.

pH
  Not available.

Melting point/freezing point
  Not available.

Initial boiling point and boiling range
  190 °F (87.78 °C)

Flash point
  126.0 °F (52.2 °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 available.

Vapor pressure temp.
  Not determined or unknown

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
  210 cP @ 25C

Other information
  Density
    7.60 lb/gal @ 25C
  Percent volatile
    18 - 20 % w/w
  Pour point
    25 °F (-3.89 °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 heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible materials
  Strong oxidizing agents. Anionic surfactants
Upon decomposition, this product may yield oxides of nitrogen and ammonia, carbon dioxide, carbon monoxide and other low molecular weight hydrocarbons.

11. Toxicological information

Information on likely routes of exposure

- **Inhalation**: Not likely, due to the form of the product.
- **Skin contact**: Causes severe skin burns.
- **Eye contact**: Causes serious eye damage.
- **Ingestion**: Toxic if swallowed. Causes digestive tract burns.

Symptoms related to the physical, chemical and toxicological characteristics

Burning pain and severe corrosive skin damage. Causes serious eye damage.

Information on toxicological effects

**Acute toxicity**

Fatal if inhaled. Toxic if swallowed.

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEPANQUAT 8188</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquid</td>
<td>Rabbit</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>Inhalation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mist</td>
<td>LC50</td>
<td>0.054 - 0.51 mg/l</td>
</tr>
<tr>
<td>Oral</td>
<td>Liquid</td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>286 mg/kg</td>
</tr>
</tbody>
</table>

**Skin corrosion/irritation**

Causes severe skin burns and eye damage.

**Serious eye damage/eye irritation**

Causes serious eye damage.

**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.
  - Not regulated.
- **US. National Toxicology Program (NTP) Report on Carcinogens**
  - Not listed.

**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**

Very toxic to aquatic life. Harmful to aquatic life with long lasting effects.
**STEPANQUAT 8188**

<table>
<thead>
<tr>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algae</td>
<td>EC50 0.063 mg/l, 96 hours</td>
</tr>
<tr>
<td>Crustacea</td>
<td>LC50 0.0058 - 0.016 mg/l, 48 hours</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50 0.86 ppm, 96 hours</td>
</tr>
</tbody>
</table>

**Persistence and degradability**
- Readily biodegradable.

**Bioaccumulative potential**
- No data available.

**Partition coefficient n-octanol / water (log Kow)**
- Ethanol: -0.31

**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**
- Not available.

**Contaminated packaging**
- Not available.

### 14. Transport information

**DOT**
- UN number: UN2924
- UN proper shipping name: Flammable Liquid, Corrosive, N.O.S. (Ethanol, Di (Octyl Decyl) Dimethyl Ammonium Chloride)
- Transport hazard class(es):
  - Class: 3
  - Subsidiary risk: 8
- Packing group: III
- Special precautions for user: Not available.

**IATA**
- UN number: UN2924
- UN proper shipping name: Flammable Liquid, Corrosive, N.O.S. (Ethanol, Di (Octyl Decyl) Dimethyl Ammonium Chloride)
- Transport hazard class(es):
  - Class: 3
  - Subsidiary risk: 8
- Packing group: III
- Environmental hazards: Yes
- Special precautions for user: Not available.

**IMDG**
- UN number: UN2924
- UN proper shipping name: Flammable Liquid, Corrosive, N.O.S. (Ethanol, Di (Octyl Decyl) Dimethyl Ammonium Chloride), MARINE POLLUTANT
- Transport hazard class(es):
  - Class: 3
  - Subsidiary risk: 8
- Packing group: III
- Environmental hazards: Yes
- Marine pollutant: Not available.
- EmS: F-E, S-C
- Special precautions for user: Not available.
- Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not available.
15. Regulatory information

**US federal regulations**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

- **TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**
  Not regulated.
- **CERCLA Hazardous Substance List (40 CFR 302.4)**
  Not listed.
- **SARA 304 Emergency release notification**
  Not regulated.
  Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

- **SARA 302 Extremely hazardous substance**
  Not listed.
- **SARA 311/312 Hazardous chemical**
  Yes
- **Classified hazard categories**
  - Flammable (gases, aerosols, liquids, or solids)
  - Acute toxicity (any route of exposure)
  - Skin corrosion or irritation
  - Serious eye damage or eye irritation
- **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.
FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace
Ethanol (CAS 64-17-5) Low priority
US state regulations
California Proposition 65
WARNING: This product can expose you to chemicals including Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.
California Proposition 65 - CRT: Listed date/Developmental toxin
Methanol (CAS 67-56-1) Listed: March 16, 2012

16. Other information, including date of preparation or last revision
Issue date 04-15-2015
Revision date 06-11-2018
Version # 04

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Revision information
Physical and chemical properties: Appearance
Toxicological Information: Toxicological Data
Regulatory information: California Proposition 65