## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

- Trade name JAGUAR C 162

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Uses of the Substance / Mixture**

- Thickener for cosmetic formulations

**Remarks**

- For professional and industrial installation and use only.

### 1.3 Details of the supplier of the safety data sheet

**Company**

Solvay USA Inc.,
NOVECARE
504 Carnegie Center
Princeton, NJ, 08540, US
Telephone Number: 800-973-7873

### 1.4 Emergency telephone

FOR EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CONTACT CHEMTREC (24-Hour Number): 800-424-9300 within the United States and Canada, or 703-527-3887 for international collect calls.

## SECTION 2: Hazards identification

Although OSHA has not adopted the environmental portion of the GHS regulations, this document may include information on environmental effects.

### 2.1 Classification of the substance or mixture

**HCS 2012 (29 CFR 1910.1200)**

| | |
|---|---|
| Combustible dust | May form combustible dust concentrations in air. |

### 2.2 Label elements

**HCS 2012 (29 CFR 1910.1200)**

**Signal Word**

- Warning

**Hazard Statements**

- May form combustible dust concentrations in air.

### 2.3 Other hazards which do not result in classification

- Divided solid.
- Combustible solid.
- Exposure to dust generated during the handling or use of the product may cause temporary mechanical irritation to the eyes, skin and respiratory tract.
- Finely divided particles may form explosive mixtures in air.
- Electrostatic charges may be generated as a result of flow, stirring etc.
- Electrostatic charges may build up by swirling, pneumatic transport, pouring etc.

## SECTION 3: Composition/information on ingredients

### 3.1 Substance

- Chemical nature: GUAR GUM, 2-HYDROXYPROPYL, 2-HYDROXY-3-(TRIMETHYLAMMONIO) PROPYL ETHER CHLORIDE

**Hazardous Ingredients and Impurities**

| Chemical name | Identification number CAS-No. | Concentration [%] |
|---|---|---|
| Guar gum, 2-hydroxypropyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride | 71329-50-5 | >= 85 - <= 95 |

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

**Non Hazardous Ingredients and Impurities**

| Chemical name | Identification number CAS-No. | Concentration [%] |
|---|---|---|
| Water | 7732-18-5 | < 11.5 |

### 3.2 Mixture

- Not applicable, this product is a substance.

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

**General advice**

- First responder needs to protect himself.
- Show this material safety data sheet to the doctor in attendance.
- Place affected apparel in a sealed bag for subsequent decontamination.
- When symptoms persist or in all cases of doubt seek medical advice.

**In case of inhalation**

- Move to fresh air.
- Keep at rest.
- Consult a physician if necessary.

**In case of skin contact**

- Take off contaminated clothing and shoes immediately.
- Wash off immediately with soap and plenty of water.
- Use a mild soap if available.
- If skin irritation occurs, seek medical advice/attention.

**In case of eye contact**

- Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
- If eye irritation persists, consult a physician.

**In case of ingestion**

- Do not induce vomiting without medical advice.
- Rinse mouth with water.
- Do not give anything to drink.
- Keep at rest.
- Consult a physician if necessary.

### 4.2 Most important symptoms and effects, both acute and delayed

- no data available

### 4.3 Indication of any immediate medical attention and special treatment needed

**Notes to physician**

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

## SECTION 5: Firefighting measures

| | |
|---|---|
| **Flash point** | Not applicable, solid for which the melting point is > 100 °C / 212°F |
| **Autoignition temperature** | 338 °F (170 °C) |
| **Flammability / Explosive limit** | No data available |

### 5.1 Extinguishing media

**Suitable extinguishing media**

- Multipurpose powders
- Alcohol Resistant Aqueous Film Forming Foam (AR-AFFF)
- Water mist

**Unsuitable extinguishing media**

- Do not use a solid water stream as it may scatter and spread fire.
- High pressure inert gas, e.g. carbon dioxide jet.
- (Avoid dispersal of dust in the air)

### 5.2 Special hazards arising from the substance or mixture

**Specific hazards during fire fighting**

- Risk of dust explosion.
- Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.
- The pressure in sealed containers can increase under the influence of heat.
- Hazardous decomposition products formed under fire conditions.
- High concentrations of toxic or harmful products may remain in the residual liquid once the fire has been extinguished.

**Hazardous combustion products:**

- Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).
- Nitrogen oxides (NOx)
- Chlorine compounds

### 5.3 Advice for firefighters

**Special protective equipment for fire-fighters**

- Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.

- Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing

**Specific fire fighting methods**

- Stay upwind.

- Fight fire remotely due to the risk of explosion.

- Do not use a solid water stream as it may scatter and spread fire.
- Cool down the containers / equipment exposed to heat with a water spray. Ensure that there is NO direct contact between the water and the product.
- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Further information**

- Evacuate personnel to safe areas.

- Avoid dust formation.

- Intervention only by capable personnel who are trained and aware of the hazards of the product.
- Never approach containers which have been exposed to fire, without cooling them sufficiently.

- Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
- Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

- Avoid inhalation, ingestion and contact with skin and eyes.
- Wear chemical resistant personal protective equipment
- Wear suitable gloves.
- Wear suitable protective clothing.

- Respiratory protection

- Wear as appropriate:
- Face-shield
- Tightly fitting safety goggles

- In the case of dust or aerosol formation use respirator with an approved filter.
- In the case of vapor formation use a respirator with an approved filter.

- Eliminate all ignition sources if safe to do so.

- Stop leak if safe to do so.

- For further information refer to section 8 "Exposure controls / personal protection."

### 6.2 Environmental precautions

- Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems.

- Prevent further leakage or spillage if safe to do so.
- Contain the spilled material by diking.
- The product should not be allowed to enter drains, water courses or the soil.

- Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies

### 6.3 Methods and materials for containment and cleaning up

- No sparking tools should be used.
- Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).

- Stop leak if safe to do so.
- Dam up with sand or inert earth (do not use combustible materials).

- Shovel or sweep up.
- Keep in suitable, closed containers for disposal.
- Never return spills in original containers for re-use.

- Wash nonrecoverable remainder with large amounts of water.
- Clean contaminated surface thoroughly.
- Recover the cleaning water for subsequent disposal.
- Decontaminate tools, equipment and personal protective equipment in a segregated area.

- Dispose of in accordance with local regulations.

**Additional advice**

- No conditions to be specially mentioned.

### 6.4 Reference to other sections

- 7. HANDLING AND STORAGE
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 13. DISPOSAL CONSIDERATIONS

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

- Handle in accordance with good industrial hygiene and safety practice.

- Provide sufficient air exchange and/or exhaust in work rooms.
- Vapor extraction at source
- Do not use in areas without adequate ventilation.
- Do NOT handle in a confined space.
- Extracted air must not be allowed to return to the workplace.

- The product should only be used in areas from which all naked lights and other sources of ignition have been excluded.

- Use explosion-proof electrical/ ventilating/ lighting/ equipment.

- Take precautionary measures against static discharges.
- Ground/bond container and receiving equipment.
- To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded.
- Ensure all equipment is electrically grounded before beginning transfer operations.
- Use only non-sparking tools.

- Wear personal protective equipment.
- Wear suitable protective clothing.

- Avoid inhalation, ingestion and contact with skin and eyes.

- Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.
- Provide for appropriate exhaust ventilation and dust collection at machinery.
- Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

- For personal protection see section 8.

**Hygiene measures**

- Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this materials:
- 1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
- 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
- 3) Wash exposed skin promptly to remove accidental splashes or contact with material.

- The user is responsible for monitoring the working environment in accordance with local laws and regulations.

### 7.2 Conditions for safe storage, including any incompatibilities

**Technical measures/Storage conditions**

- Take appropriate measures to prevent static discharges, which may include thorough electrical interconnecting, grounding of equipment, and/or conveyance under inert gas.

- Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems.

- Keep containers tightly closed in a dry, cool and well-ventilated place.
- Keep away from open flames, hot surfaces and sources of ignition.
- Keep away from incompatible materials to be indicated by the manufacturer

- Keep away from: Hazardous reactions may occur on contact with certain chemicals. (Refer to the list of incompatible materials section 10: "Stability-Reactivity").

**Packaging material**

**Suitable material**
- Plastic materials.
- Coated steels.
- Stainless steel

**Requirements for storage rooms and vessels**

**Recommended storage temperature:** < 122 °F (< 50 °C)

### 7.3 Specific end use(s)

- no data available

## SECTION 8: Exposure controls/personal protection

Introductory Remarks: These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

### 8.1 Control parameters

- Contains no substances with occupational exposure limit values.

**Components with workplace occupational exposure limits**

| Components | Value type | Value | Basis |
|---|---|---|---|
| Particulates not otherwise regulated | PEL | 15 mg/m3 | Occupational Safety and Health Administration - Table Z-1 Limits for Air Contaminants |
| | Form of exposure : Total dust | | |
| Particulates not otherwise regulated | PEL | 5 mg/m3 | Occupational Safety and Health Administration - Table Z-1 Limits for Air Contaminants |
| | Form of exposure : Respirable fraction | | |

### 8.2 Exposure controls

**Control measures**

**Engineering measures**

- Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures :

- Effective exhaust ventilation system
- Ensure adequate ventilation.

- Extract at emission point.
- Ensure that extracted air cannot be returned to the workplace through the ventilation system.

- Facilities and equipment easily cleanable.
- Dust must be extracted directly at the point of origin.
- Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

- Avoid dust formation.

**Individual protection measures**

**Respiratory protection**

- This should be achieved by a good general extraction and -if practically feasible- by the use of a local exhaust ventilation.
- When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations.
- Respirator must be worn if exposed to dust.
- Recommended Filter type: Particulates type

**Hand protection**

- Where there is a risk of contact with hands, use appropriate gloves
- Gloves must be inspected prior to use.
- Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
- Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

***Suitable material***
- Nitrile rubber

- Neoprene

- butyl-rubber

- PVC

**Eye protection**
- Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material.
- Eye contact should be prevented through the use of:

- Tightly fitting safety goggles
- Face-shield

**Skin and body protection**
- Wear fire resistant and antistatic coveralls
- Workers should wear antistatic footwear.

- Full protective suit
- Footwear protecting against chemicals

- Choose body protection according to the amount and concentration of the dangerous substance at the work place.

**Hygiene measures**
- Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this materials:
- 1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
- 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
- 3) Wash exposed skin promptly to remove accidental splashes or contact with material.

- The user is responsible for monitoring the working environment in accordance with local laws and regulations.

**Protective measures**
- Emergency equipment immediately accessible, with instructions for use.
- Ensure that eyewash stations and safety showers are close to the workstation location.
- Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the potential hazards, and/or risks that may occur during use.

- The protective equipment must be selected in accordance with current local regulations and in cooperation with the supplier of the protective equipment.

## SECTION 9: Physical and chemical properties

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product

information phone number in Section 1 for its exact specifications.

**9.1 Information on basic physical and chemical properties**

| | |
|---|---|
| **Appearance** | Form: Fine powder<br>Physical state: solid (77 °F (25 °C))<br>Color: yellow |
| **Odor** | amine-like |
| **Odor Threshold** | No data available |
| **pH** | 8.5 - 10.5 ( 1 %)<br>Aqueous solution |
| **Melting point/freezing point** | Melting point/range: 338 °F (170 °C)<br>Decomposition: yes |
| **Initial boiling point and boiling range** | No data available |
| **Flash point** | Not applicable, solid for which the melting point is > 100 °C / 212°F |
| **Evaporation rate (Butylacetate = 1)** | No data available |
| **Flammability (solid, gas)** | May form combustible dust concentrations in air. |
| **Flammability / Explosive limit** | No data available |
| **Autoignition temperature** | 338 °F (170 °C) Relative self-ignition temperature for solids |
| **Vapor pressure** | No data available |
| **Vapor density** | No data available |
| **Density** | Bulk density: 700 kg/m3 |
| **Relative density** | No data available |
| **Solubility** | Water solubility:<br>soluble<br><br>Solubility in other solvents:<br>nonpolar solvents : insoluble |
| **Partition coefficient: n-octanol/water** | No data available |
| **Decomposition temperature** | No data available |
| **Viscosity** | No data available |
| **Explosive properties** | No data available |
| **Oxidizing properties** | Not considered as oxidizing., Structure-activity relationship (SAR) |

### 9.2 Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

- Stable at normal ambient temperature and pressure.

### 10.2 Chemical stability

- Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

- Under certain conditions, small dust-particles from the product may form flammable and explosive mixtures with the air.

### 10.4 Conditions to avoid

- Avoid dust formation.
- Prevent the build-up of electrostatic charge.
- Keep away from open flames, hot surfaces and sources of ignition.
- Avoid excessive heat for prolonged periods of time.

### 10.5 Incompatible materials

- Strong oxidizing agents.
- hot strong concentrated acids.
- Strong bases

### 10.6 Hazardous decomposition products

- Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).
- Nitrogen oxides (NOx)
- Chlorinated compounds

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

**Acute toxicity**

**Acute oral toxicity**

| | |
|---|---|
| Guar gum, 2-hydroxypropyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride | LD50 : > 2,000 mg/kg - Rat , male and female<br>Method: OECD Test Guideline 401<br>The product has a low acute toxicity<br>Unpublished internal reports |

**Acute inhalation toxicity**

| | |
|---|---|
| Guar gum, 2-hydroxypropyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride | No data available |

**Acute dermal toxicity**

| | |
|---|---|
| Guar gum, 2-hydroxypropyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride | By analogy<br><br>Not classified as hazardous for acute dermal toxicity according to GHS. |

**Acute toxicity (other routes of administration)**

| | |
|---|---|
| Guar gum, 2-hydroxypropyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride | No data available |

**Skin corrosion/irritation**

| | |
|---|---|
| Guar gum, 2-hydroxypropyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride | Rabbit<br>Not classified as irritating to skin<br>Method: OECD Test Guideline 404<br>Unpublished internal reports |

**Serious eye damage/eye irritation**

| | |
|---|---|
| Guar gum, 2-hydroxypropyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride | Rabbit<br>Not classified as irritating to eyes<br>Method: OECD Test Guideline 405<br>Unpublished internal reports |

**Respiratory or skin sensitization**

| | |
|---|---|
| Guar gum, 2-hydroxypropyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride | Maximization Test - Guinea pig<br>Does not cause skin sensitization.<br>Method: OECD Test Guideline 406<br>Unpublished internal reports |

**Mutagenicity**

**Genotoxicity in vitro**

| | |
|---|---|
| Guar gum, 2-hydroxypropyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride | Mutagenicity (Salmonella typhimurium - reverse mutation assay) with and without metabolic activation<br><br>negative<br>Method: OECD Test Guideline 471<br>Unpublished internal reports |

**Genotoxicity in vivo**

| | |
|---|---|
| Guar gum, 2-hydroxypropyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride | No data available |

**Carcinogenicity**

| | |
|---|---|
| Guar gum, 2-hydroxypropyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride | No data available |

This product does not contain any ingredient designated as probable or suspected human carcinogens by:

NTP
IARC
OSHA
ACGIH
NTP
IARC
OSHA

**Toxicity for reproduction and development**

**Toxicity to reproduction / fertility**

| | |
|---|---|
| Guar gum, 2-hydroxypropyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride | No data available |

**Developmental Toxicity/Teratogenicity**

| | |
|---|---|
| Guar gum, 2-hydroxypropyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride | No data available |

**STOT**

**STOT-single exposure**

| | |
|---|---|
| Guar gum, 2-hydroxypropyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride | Routes of exposure: Ingestion<br>The substance or mixture is not classified as specific target organ toxicant, single exposure according to GHS criteria.<br>internal evaluation |

| | |
|---|---|
| **STOT-repeated exposure** | No data available |
| **Experience with human exposure** | No data available |
| **Aspiration toxicity** | No data available |

## SECTION 12: Ecological information

### 12.1 Toxicity

**Aquatic Compartment**

**Acute toxicity to fish**

| | |
|---|---|
| Guar gum, 2-hydroxypropyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride | semi-static test<br><br>mortality<br><br>LC50 - 96 h : > 100 mg/l - Oncorhynchus mykiss (rainbow trout)<br>Analytical monitoring: no<br><br>Method: Directive 67/548/EEC, Annex V, C.1.<br>Freshwater species<br>Highest concentration tested<br>Unpublished internal reports<br>Not harmful to fish (LC/LL50 > 100 mg/L) |

**Acute toxicity to daphnia and other aquatic invertebrates**

| | |
|---|---|
| Guar gum, 2-hydroxypropyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride | static test<br><br>Immobilization<br><br>EC50 - 48 h : 282 mg/l - Daphnie: Daphnia carinata<br>Analytical monitoring: no<br>Method: according to a standardized method<br>Freshwater species<br>Unpublished internal reports<br>Not harmful to aquatic invertebrates. (EC/EL50 > 100 mg/L) |

**Toxicity to aquatic plants**

| | |
|---|---|
| Guar gum, 2-hydroxypropyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride | EC50 - 96 h : > 1,000 mg/l - Selenastrum capricornutum (green algae)<br>static test<br>Endpoint: Growth rate<br>Method: according to a standardized method<br>Freshwater species<br>Highest concentration tested<br>Unpublished internal reports<br>Not harmful to algae (EC/EL50 > 100 mg/L)<br><br>NOEC - 96 h : 1,000 mg/l - Selenastrum capricornutum (green algae)<br>static test<br>Endpoint: Growth rate<br>Method: according to a standardized method<br>Freshwater species<br>Highest concentration tested<br>Unpublished internal reports<br>No adverse chronic effect observed up to and including the threshold of 1 mg / L. |

| | |
|---|---|
| **Toxicity to microorganisms** | No data available |

**Chronic toxicity to fish**

| | |
|---|---|
| Guar gum, 2-hydroxypropyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride | No data available |

**Chronic toxicity to daphnia and other aquatic invertebrates**

| | |
|---|---|
| Guar gum, 2-hydroxypropyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride | No data available |

## 12.2 Persistence and degradability

| | |
|---|---|
| **Abiotic degradation** | No data available |
| **Physical- and photo-chemical elimination** | No data available |

**Biodegradation**

**Biodegradability**

| | |
|---|---|
| Guar gum, 2-hydroxypropyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride | Ready biodegradability study:<br><br>aerobic<br><br>Method: OECD Test Guideline 301 D<br>5 % - 28 Days<br>The substance does not fulfill the criteria for ready biodegradability and ultimate aerobic biodegradability<br>Theoretical oxygen demand<br>Inoculum: activated sludge<br>Unpublished internal reports<br><br>Inherent biodegradability study - aerobic<br>Method: OECD Test Guideline 302 B<br>0 % - 28 Days<br>The substance does not fulfill the criteria for inherent biodegradability<br>Theoretical carbon dioxide production<br>Inoculum: activated sludge<br>Unpublished internal reports |

**Degradability assessment**

| | |
|---|---|
| Guar gum, 2-hydroxypropyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride | The product is not considered to be rapidly degradable in the environment |

## 12.3 Bioaccumulative potential

| | |
|---|---|
| **Partition coefficient: n-octanol/water** | No data available |

**Bioconcentration factor (BCF)**

| | |
|---|---|
| Guar gum, 2-hydroxypropyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride | Not potentially bioaccumulable<br>Expert judgment |

**12.4 Mobility in soil**

| | |
|---|---|
| **Adsorption potential (Koc)** | No data available |
| **Known distribution to environmental compartments** | No data available |

**12.5 Results of PBT and vPvB assessment**

| | |
|---|---|
| Guar gum, 2-hydroxypropyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride | This substance is not considered to be persistent, bioaccumulating, and toxic (PBT).<br>This substance is not considered to be very persistent and very bioaccumulating (vPvB). |

**12.6 Other adverse effects**

**Ecotoxicity assessment**

**Short-term (acute) aquatic hazard**

| | |
|---|---|
| Guar gum, 2-hydroxypropyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride | Not harmful to aquatic life (LC/LL50, EC/EL50 > 100 mg/L) |

**Long-term (chronic) aquatic hazard**

| | |
|---|---|
| Guar gum, 2-hydroxypropyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride | No adverse chronic effect observed up to and including the threshold of 1 mg / L. |

## SECTION 13: Disposal considerations

**13.1 Waste treatment methods**

**Product Disposal**

***Prohibition***

- Do not discharge directly into the environment.
- Dispose of in accordance with local regulations.
- Chemical additions, processing or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.

**Advice on cleaning and disposal of packaging**

***Prohibition***

- Do NOT dispose of untreated packaging with industrial waste.
- Do not dispose of with domestic refuse.
- Empty remaining contents.

- Clean using steam.
- Monitor the residual vapors.
- Dispose of rinse water in accordance with local and national regulations.

- Containers that cannot be cleaned must be treated as waste.

- Dispose of contents/ container to an approved waste disposal plant.
- Dispose of in accordance with local regulations.

- Where possible recycling is preferred to disposal or incineration.
- The recycled material must be completely dry and free of pollutants.

## SECTION 14: Transport information

**DOT**
not regulated

**TDG**
not regulated

**NOM**
not regulated

**IMDG**
not regulated

**IATA**
not regulated

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transportation regulations for hazardous materials, it would be advisable to check their validity with your sales office.

## SECTION 15: Regulatory information

### 15.1 Notification status

| Inventory Information | Status |
|---|---|
| United States TSCA Inventory | - All substances listed as active on the TSCA inventory |
| Canadian Domestic Substances List (DSL) | - One or more components not listed on inventory |
| Australia Inventory of Chemical Substances (AICS) | - Listed on Inventory |
| Japan. CSCL - Inventory of Existing and New Chemical Substances | - Listed on Inventory |
| Korea. Korean Existing Chemicals Inventory (KECI) | - One or more components not listed on inventory |
| China. Inventory of Existing Chemical Substances in China (IECSC) | - Listed on Inventory |
| Philippines Inventory of Chemicals and Chemical Substances (PICCS) | - Listed on Inventory |
| Taiwan Chemical Substance Inventory (TCSI) | - Listed on Inventory |
| New Zealand. Inventory of Chemical Substances | - All components are listed on the NZIOC inventory. The HSNO status of the product has not been assessed. |
| EU. European Registration, Evaluation, Authorisation and Restriction of Chemical (REACH) | - When purchased from a Solvay legal entity based in the EEA ("European Economic Area"), this product is compliant with the registration provisions of the REACH Regulation (EC) No. 1907/2006 as all its components are either excluded, exempt, and/or registered. When purchased from a legal entity outside of the EEA, please contact your local representative for additional information. |

### 15.2 Federal Regulations

**US. EPA EPCRA SARA Title III**

**Section 313 Toxic Chemicals (40 CFR 372.65)**
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**Section 302 Emergency Planning Extremely Hazardous Substance Threshold Planning Quantity (40 CFR 355)**
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
**Section 302 Emergency Planning Extremely Hazardous Substance Reportable Quantity (40 CFR 355)**

| Components | CAS-No. | Reportable quantity |
|---|---|---|
| Propylene Oxide | 75-56-9 | 100 lb |

**Section 304 Emergency Release Notification Reportable Quantity (40 CFR 355)**

| Components | CAS-No. | Reportable quantity |
|---|---|---|
| Propylene Oxide | 75-56-9 | 100 lb |

**US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)**

| Components | CAS-No. | Reportable quantity |
|---|---|---|
| Propylene Oxide | 75-56-9 | 100 lb |

**15.3 State Regulations**

**US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)**

This product can expose you to chemicals including Propylene Oxide (CAS # 75-56-9) , which is/are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.
This product can expose you to chemicals including Propylene Oxide (CAS # 75-56-9)

## SECTION 16: Other information

**NFPA (National Fire Protection Association) - Classification**

| | |
|---|---|
| Health | 1 slight |
| Flammability | 1 slight |
| Instability or Reactivity | 0 minimal |

**HMIS (Hazardous Materials Identification System (Paint & Coating)) - Classification**

| | |
|---|---|
| Health | 1 slight |
| Flammability | 1 slight |
| Reactivity | 0 minimal |
| PPE | Determined by User; dependent on local conditions |

**Further information**

- Product evaluated under the US GHS format.

**Date Prepared:** 07/15/2019

**Key or legend to abbreviations and acronyms used in the safety data sheet**

| | |
|---|---|
| - PEL | Permissible exposure limit (PEL) |
| - TWA | Time weighted average |
| - ACGIH | American Conference of Governmental Industrial Hygienists |
| - OSHA | Occupational Safety and Health Administration |
| - NTP | National Toxicology Program |
| - IARC | International Agency for Research on Cancer |
| - NIOSH | National Institute for Occupational Safety and Health |