

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

- Trade name FENTACARE 2231 EF

1.2 Relevant identified uses of the substance or mixture and uses advised against**Uses of the Substance / Mixture**

- Cosmetics, personal care products

Uses advised against

- For industrial 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 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)**

Flammable solids, Category 1
Combustible dust
Acute toxicity, Category 4
Skin irritation, Category 2
Serious eye damage, Category 1
Specific target organ systemic toxicity - repeated exposure, Category 2

H228: Flammable solid.
May form combustible dust concentrations in air.
H312: Harmful in contact with skin.
H315: Causes skin irritation.
H318: Causes serious eye damage.
H373: May cause damage to organs through prolonged or repeated exposure.

2.2 Label elements**HCS 2012 (29 CFR 1910.1200)****Pictogram****Signal Word**

- Danger

Hazard Statements

- H228 Flammable solid.
- May form combustible dust concentrations in air.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary StatementsPrevention

- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P240 Ground/bond container and receiving equipment.
- P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
- P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
- P264 Wash skin thoroughly after handling.
- P280 Wear protective gloves/ eye protection/ face protection.

Response

- P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 Immediately call a POISON CENTER/doctor.
- P332 + P313 If skin irritation occurs: Get medical advice/ attention.
- P362 Take off contaminated clothing and wash before reuse.
- P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

2.3 Other hazards which do not result in classification

- H400: Very toxic to aquatic life.
- H410: Very toxic to aquatic life with long lasting effects.

SECTION 3: Composition/information on ingredients**3.1 Substance**

- Not applicable, this product is a mixture.

3.2 Mixture

- Chemical nature Reaction products

Hazardous Ingredients and Impurities

Chemical name	Identification number CAS-No.	Concentration [%]
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides	68607-24-9	80 - 90
Isopropanol	67-63-0	10 - 20
Amines, C20-22-alkyldimethyl	93164-85-3	1 - 5

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

SECTION 4: First aid measures**4.1 Description of first-aid measures****General advice**

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- Show this material safety data sheet to the doctor in attendance.
- First responder needs to protect himself.
- Place affected apparel in a sealed bag for subsequent decontamination.
- Plan first aid action before beginning work with this product.

In case of inhalation

- Remove person to fresh air. If signs/symptoms continue, get medical attention.

In case of skin contact

- Take off contaminated clothing and shoes immediately.
- Wash off with soap and plenty of water.
- Call a physician if irritation persists.

In case of eye contact

- Rinse with running water whilst keeping the eyes wide open (at least 15 minutes).
- Get immediate medical advice/ attention.

In case of ingestion

- Do not induce vomiting without medical advice.
- If victim is conscious:
 - Rinse mouth with water.
 - Keep at rest.
- Never give anything by mouth to an unconscious person.
- Do not leave the victim unattended.
- Vomiting may occur spontaneously
- Risk of product entering the lungs on vomiting after ingestion.
- Lay victim on side.
- Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed**Effects**

- Skin contact may aggravate existing skin disease
- Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis

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.
- Treat symptomatically.
- There is no specific antidote available.

SECTION 5: Firefighting measures

<u>Flash point</u>	Not applicable
<u>Autoignition temperature</u>	no data available
<u>Flammability / Explosive limit</u>	no data available

5.1 Extinguishing media**Suitable extinguishing media**

- Water mist
- Dry powder
- Carbon dioxide (CO₂)
- Foam

Unsuitable extinguishing media

- Water spray jet

5.2 Special hazards arising from the substance or mixture**Specific hazards during fire fighting**

- Under fire conditions:
- Will burn
- Vapors may spread long distances and ignite.
- 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.

Hazardous combustion products:

- Hazardous combustion products
- Nitrogen oxides (NO_x)
- Carbon oxides

5.3 Advice for firefighters**Special protective equipment for fire-fighters**

- Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing
- Wear self-contained breathing apparatus for firefighting if necessary.
- Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

- Mark the contaminated area with signs and prevent access to unauthorized personnel.
- Immediately evacuate personnel to safe areas.
- Only qualified personnel equipped with suitable protective equipment may intervene.
- Avoid contact with the skin and the eyes.
- Stop the leak. Turn leaking containers leak-side up to prevent the escape of liquid.
- If spillage occurs on the public highway, indicate the danger and notify the authorities (police, fire service).

6.2 Environmental precautions

- Dam up.
- Do not allow uncontrolled discharge of product into the environment.
- 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***Recovery***

- Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
- Never return spills in original containers for re-use.

Decontamination / cleaning

- Wash off with plenty of water.
- Clean contaminated surface thoroughly.

- Recover the cleaning water for subsequent disposal.
- Decontaminate tools, equipment and personal protective equipment in a segregated area.

Disposal

- Dispose of in accordance with local regulations.

Prohibition

- Avoid dust formation.
- Use only non-sparking tools.

6.4 Reference to other sections

- no data available

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

- The product must only be handled by specifically trained employees.
- Handle in accordance with good industrial hygiene and safety practice.
- Avoid inhalation, ingestion and contact with skin and eyes.

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.

7.2 Conditions for safe storage, including any incompatibilities**Technical measures/Storage conditions**

- Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems.
- Keep in a dry, cool and well-ventilated place.
- Store in original container.
- Keep tightly closed.
- Store away from heat.
- Keep away from: Do not mix with incompatible materials (See list, section 10).

Packaging material

- Suitable material
- Plastic drum

Requirements for storage rooms and vessels

Recommended storage temperature: 39 - 104 °F (4 - 40 °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

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with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

8.1 Control parameters

Components with workplace occupational exposure limits

Ingredients	Value type	Value	Basis
Isopropanol	TWA	200 ppm	American Conference of Governmental Industrial Hygienists
Isopropanol	STEL	400 ppm	American Conference of Governmental Industrial Hygienists
Isopropanol	TWA	400 ppm 980 mg/m3	National Institute for Occupational Safety and Health
Isopropanol	ST	500 ppm 1,225 mg/m3	National Institute for Occupational Safety and Health
Isopropanol	TWA	400 ppm 980 mg/m3	Occupational Safety and Health Administration - Table Z-1 Limits for Air Contaminants
The value in mg/m3 is approximate.			
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			

NIOSH IDLH (Immediately Dangerous to Life or Health Concentrations)

Ingredients	CAS-No.	Concentration
Isopropanol	67-63-0	2000 ppm

Biological Exposure Indices

Ingredients	Value type	Value	Basis
Isopropanol	BEI	40 mg/l Acetone Urine End of shift at end of workweek	American Conference of Governmental Industrial Hygienists

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 :
- Facilities and equipment easily cleanable.
- Provide adequate ventilation.

Individual protection measures

Respiratory protection

- 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.
- Use a respirator with an approved filter if a risk assessment indicates this is necessary.

Hand protection

- 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 must be inspected prior to use.
- Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Eye protection

- Tightly fitting safety goggles
- 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:

Skin and body protection

- Impervious clothing
- Safety shoes
- Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- Remove and wash contaminated clothing before re-use.

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.

Protective measures

- Ensure that eyewash stations and safety showers are close to the workstation location.
- The protective equipment must be selected in accordance with current local standards and in cooperation with the supplier of the protective equipment.
- 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.

SECTION 9: Physical and chemical properties

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

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information phone number in Section 1 for its exact specifications.

9.1 Information on basic physical and chemical properties

<u>Appearance</u>	<u>Form:</u> flakes <u>Physical state:</u> solid (77 °F (25 °C)) <u>Color:</u> white to pale yellow.
<u>Odor</u>	alcohol-like
<u>Odor Threshold</u>	no data available
<u>pH</u>	5.0 - 7.5 (5 %) Aqueous alcohol solution
<u>Melting point/freezing point</u>	no data available
<u>Initial boiling point and boiling range</u>	no data available
<u>Flash point</u>	Not applicable
<u>Evaporation rate (Butylacetate = 1)</u>	no data available
<u>Flammability (solid, gas)</u>	The substance or mixture is a flammable solid with the category 1. May form combustible dust concentrations in air.
<u>Flammability / Explosive limit</u>	no data available
<u>Autoignition temperature</u>	no data available
<u>Vapor pressure</u>	no data available
<u>Vapor density</u>	no data available
<u>Density</u>	no data available
<u>Relative density</u>	no data available
<u>Solubility</u>	<u>Water solubility:</u> soluble in hot water <u>Solubility in other solvents:</u> Alcohols : soluble
<u>Partition coefficient: n-octanol/water</u>	no data available
<u>Decomposition temperature</u>	no data available
<u>Viscosity</u>	no data available
<u>Explosive properties</u>	no data available
<u>Oxidizing properties</u>	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**Polymerization**

- Hazardous polymerization does not occur.

10.4 Conditions to avoid

- Keep away from heat and sources of ignition.
- Avoid dust formation.

10.5 Incompatible materials

- Strong acids
- Strong oxidizing agents

10.6 Hazardous decomposition products

- On combustion or on thermal decomposition (pyrolysis), releases:
- (Carbon oxides (CO + CO₂)).
- Nitrogen oxides (NO_x)

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity****Acute oral toxicity**

Quaternary ammonium compounds,
C20-22-alkyltrimethyl, chlorides

LD50 : 3,190 mg/kg - Rat , female
Method: OECD Test Guideline 401
The product has a low acute toxicity
Gavage

Acute inhalation toxicity

Unpublished reports
no data available

Acute dermal toxicity

Quaternary ammonium compounds,
C20-22-alkyltrimethyl, chlorides

This product is classified as acute toxicity category 4
By analogy
Information given is based on data obtained from similar substances.
Expert judgment

Acute toxicity (other routes of administration)

no data available

Skin corrosion/irritation

Quaternary ammonium compounds,
C20-22-alkyltrimethyl, chlorides

Rabbit
Skin irritation
Method: OECD Test Guideline 404
Published data

Serious eye damage/eye irritation

Quaternary ammonium compounds,
C20-22-alkyltrimethyl, chlorides

Rabbit
Irreversible effects on the eye
Method: OECD Test Guideline 405
Published data

Respiratory or skin sensitization

Does not cause skin sensitization.

Does not cause respiratory sensitization.
The product itself has not been tested.
According to the data on the components
According to the classification criteria for mixtures.

Mutagenicity**Genotoxicity in vitro**

The product itself has not been tested.
According to the data on the components
Product is not considered to be genotoxic
According to the classification criteria for mixtures.

Genotoxicity in vivo

The product itself has not been tested.
According to the data on the components
Product is not considered to be genotoxic
According to the classification criteria for mixtures.

Carcinogenicity

The product itself has not been tested.
According to the data on the components
Not classifiable as a human carcinogen.
According to the classification criteria for mixtures.

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

NTP
IARC
OSHA
ACGIH

Toxicity for reproduction and development**Toxicity to reproduction / fertility**

The product itself has not been tested.
According to the data on the components
No toxicity to reproduction
According to the classification criteria for mixtures.

Developmental Toxicity/Teratogenicity

The product itself has not been tested.
According to the data on the components
no embryotoxic or teratogenic effects have been observed
According to the classification criteria for mixtures.

STOT**STOT-single exposure**

The substance or mixture is not classified as specific target organ toxicant, single exposure according to GHS criteria.

The product itself has not been tested., According to the data on the components, According to the classification criteria for mixtures.

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure.

The product itself has not been tested., According to the data on the components, According to the classification criteria for mixtures.

Quaternary ammonium compounds,
C20-22-alkyltrimethyl, chlorides

Ingestion 28 Days - Rat , male and female

NOAEL: 10 mg/kg

Method: OECD Test Guideline 407

Unpublished reports

Aspiration toxicity

The product itself has not been tested., According to the data on the components, No aspiration toxicity classification, According to the classification criteria for mixtures.

SECTION 12: Ecological information**12.1 Toxicity****Aquatic Compartment****Acute toxicity to fish**

Quaternary ammonium compounds,
C20-22-alkyltrimethyl, chlorides

LC50 - 96 h : 3.5 mg/l - Danio rerio (zebra fish)
static test

Analytical monitoring: yes

Method: OECD Test Guideline 203

Freshwater species

Ecotoxicity probably mitigated by the presence of humic acids in the test media

Unpublished reports

Very toxic to fish.

Expert judgment

Acute toxicity to daphnia and other aquatic invertebrates.

Quaternary ammonium compounds,
C20-22-alkyltrimethyl, chlorides

EC50 - 48 h : 1.39 mg/l - *Daphnia magna* (Water flea)
static test
Analytical monitoring: yes
Method: OECD Test Guideline 202
Freshwater species
Ecotoxicity probably mitigated by the presence of humic acids in the test media
Unpublished reports

Very toxic to aquatic invertebrates.
Expert judgment

NOEC - 96 h : 250 mg/kg dry weight (d.w.) - *Caenorhabditis elegans*
Method: according to a standardized method
(nominal concentrations)
Unpublished reports

Toxicity to aquatic plants

Quaternary ammonium compounds,
C20-22-alkyltrimethyl, chlorides

ErC50 - 72 h : 3.48 mg/l - *Desmodesmus subspicatus* (green algae)
static test
Analytical monitoring: yes
Endpoint: Growth rate
Method: OECD Test Guideline 201
Freshwater species
Ecotoxicity probably mitigated by the presence of humic acids in the test media
Unpublished reports
Very toxic to algae.
Expert judgment

EC10 - 72 h : 0.78 mg/l - *Desmodesmus subspicatus* (green algae)
static test
Analytical monitoring: yes
Endpoint: Growth rate
Method: OECD Test Guideline 201
Freshwater species
Ecotoxicity probably mitigated by the presence of humic acids in the test media
Unpublished reports
Very toxic to algae with long lasting effects.
Expert judgment

Toxicity to microorganisms

Quaternary ammonium compounds,
C20-22-alkyltrimethyl, chlorides

activated sludge
static test
Endpoint: Respiration inhibition

EL50 - 3 h : 43 mg/l
Analytical monitoring: no
Method: OECD Test Guideline 209
Unpublished reports

EC10 - 3 h : 9.5 mg/l
Analytical monitoring: no
Method: OECD Test Guideline 209
Unpublished reports

Chronic toxicity to fish

Quaternary ammonium compounds,
C20-22-alkyltrimethyl, chlorides

NOEC: 0.24 mg/l - 9 Days - Danio rerio (zebra fish)
semi-static test
Analytical monitoring: yes
Endpoint: hatching
Method: OECD Test Guideline 212

NOEC: 0.24 mg/l - 9 Days - Danio rerio (zebra fish)
semi-static test
Analytical monitoring: yes
Endpoint: Growth
Method: OECD Test Guideline 212

NOEC: 0.24 mg/l - 9 Days - Danio rerio (zebra fish)
semi-static test
Analytical monitoring: yes
Endpoint: Post-hatch survival
Method: OECD Test Guideline 212

Freshwater species
Ecotoxicity probably mitigated by the presence of humic acids in the test media
Unpublished reports
Very toxic to fish with long lasting effects.
Expert judgment

Chronic toxicity to daphnia and other aquatic invertebrates.

Quaternary ammonium compounds,
C20-22-alkyltrimethyl, chlorides

NOEC: 0.128 mg/l - 21 Days - Daphnia magna (Water flea)
semi-static test
Analytical monitoring: yes
Method: OECD Test Guideline 211
Freshwater species
Ecotoxicity probably mitigated by the presence of humic acids in the test media
Unpublished reports
Very toxic to aquatic invertebrates with long lasting effects.
Expert judgment

NOEC: - 28 d - Lumbriculus variegatus
Method: OECD Test Guideline 225
Measured concentration.
Unpublished reports

Chronic Toxicity to aquatic plants

no data available

Sediment compartment

Toxicity to benthic organisms

Quaternary ammonium compounds,
C20-22-alkyltrimethyl, chlorides

NOEC: 62.5 mg/kg sediment dw Exposure duration: 28 Days
Species: *Lumbriculus variegatus*
Method: OECD Test Guideline 225
Fresh water

NOEC: 250 mg/kg sediment dw Exposure duration: 96 h
Species: *Caenorhabditis elegans*
Method: according to a standardized method
Fresh water

Terrestrial Compartment**Toxicity to soil dwelling organisms**

Quaternary ammonium compounds,
C20-22-alkyltrimethyl, chlorides

NOEC: 250 mg/kg - 54 Days - *Eisenia fetida* (earthworms)
Endpoint: mortality
Method: OECD Test Guideline 222
Unpublished reports

NOEC: 250 mg/kg - 54 Days - *Eisenia fetida* (earthworms)
Endpoint: Reproduction
Method: OECD Test Guideline 222
Unpublished reports

NOEC: 250 mg/kg - 54 Days - *Eisenia fetida* (earthworms)
Endpoint: Body weight
Method: OECD Test Guideline 222
Unpublished reports

NOEC: 500 mg/kg - 28 Days - *Folsomia candida*
Endpoint: mortality
Method: ISO 11267
Unpublished reports

NOEC: 500 mg/kg - 28 Days - *Folsomia candida*
Endpoint: Reproduction
Method: ISO 11267
Unpublished reports

NOEC: 10 mg/kg - 28 Days - soil micro-organisms
Endpoint: Nitrogen transformation
Method: OECD Test Guideline 216
Unpublished reports

M-Factor

Quaternary ammonium compounds,
C20-22-alkyltrimethyl, chlorides

Acute aquatic toxicity = 1
Chronic aquatic toxicity = 1
(according to the Globally Harmonized System (GHS))

12.2 Persistence and degradability**Abiotic degradation**

no data available

Physical- and photo-chemical elimination

no data available

Biodegradation**Biodegradability**Quaternary ammonium compounds,
C20-22-alkyltrimethyl, chlorides

By analogy

Ready biodegradability study:

Method: OECD Test Guideline 301 B

80 % - 28 Days

The substance does not fulfill the criteria for ready biodegradability but fulfills the criteria for ultimate aerobic biodegradability

Theoretical carbon dioxide production

Inoculum: activated sludge

aerobic

Information given is based on data obtained from similar substances.

Expert judgment

Unpublished reports

By analogy

Simulation study

Half-life value: 23.2 - 41.4 Days

Inoculum: Soil

Information given is based on data obtained from similar substances.

Expert judgment

Unpublished reports

Degradability assessmentQuaternary ammonium compounds,
C20-22-alkyltrimethyl, chlorides

The product is not considered to be rapidly degradable in the environment

12.3 Bioaccumulative potential**Partition coefficient: n-octanol/water**Quaternary ammonium compounds,
C20-22-alkyltrimethyl, chlorides

Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.

Bioconcentration factor (BCF)

no data available

12.4 Mobility in soil**Adsorption potential (Koc)**

Quaternary ammonium compounds,
C20-22-alkyltrimethyl, chlorides

Adsorption
Sediment
Log Koc: 4.2

Soil
Log Koc: 4.3 - 5.7
Method: OECD Test Guideline 106
Information given is based on data obtained from similar products
Expert judgment
Unpublished reports

Hardly mobile in soils

Known distribution to environmental compartments no data available

12.5 Results of PBT and vPvB assessment

This substance is not considered to be persistent, bioaccumulating, and toxic (PBT).
This substance is not considered to be very persistent and very bioaccumulating (vPvB).

12.6 Other adverse effects

no data available

Ecotoxicity assessment

Acute aquatic toxicity Very toxic to aquatic life.

Chronic aquatic toxicity Very toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Product Disposal**

- 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.

Waste Code

- Environmental Protection Agency
- Hazardous Waste – YES
- RCRA Hazardous Waste (40 CFR 302)
- D001 - Ignitable waste – (I)

SECTION 14: Transport information

Transportation status: IMPORTANT! Statements below provide additional data on listed transport classification.

The listed Transportation Classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors.

DOT

14.1 UN number	UN 1325
14.2 Proper shipping name	FLAMMABLE SOLIDS, ORGANIC, N.O.S. (Isopropanol, Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides)
14.3 Transport hazard class	4.1
Label(s)	4.1
14.4 Packing group	
Packing group	II
ERG No	133
14.5 Environmental hazards	YES
Marine pollutant	Marine Pollutant (Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides)

TDG

14.1 UN number	UN 1325
14.2 Proper shipping name	FLAMMABLE SOLID, ORGANIC, N.O.S. (Isopropanol, Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides)
14.3 Transport hazard class	4.1
Label(s)	4.1
14.4 Packing group	
Packing group	II
ERG No	133
14.5 Environmental hazards	YES
Marine pollutant	Marine Pollutant (Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides)

NOM

14.1 UN number	UN 1325
14.2 Proper shipping name	FLAMMABLE SOLID, ORGANIC, N.O.S. (Isopropanol, Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides)
14.3 Transport hazard class	4.1
Label(s)	4.1
14.4 Packing group	
Packing group	II
ERG No	133
14.5 Environmental hazards	YES
Marine pollutant	

IMDG

14.1 UN number	UN 1325
14.2 Proper shipping name	FLAMMABLE SOLID, ORGANIC, N.O.S. (Isopropanol, Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides)
IMDG Code segregation group	Not Relevant
14.3 Transport hazard class	4.1
Label(s)	4.1
14.4 Packing group	
Packing group	II
14.5 Environmental hazards	YES
Marine pollutant	
14.6 Special precautions for user	
EmS	F-A , S-G
For personal protection see section 8.	

IATA

14.1 UN number	UN 1325
14.2 Proper shipping name	FLAMMABLE SOLID, ORGANIC, N.O.S. (Isopropanol, Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides)
14.3 Transport hazard class	4.1
Label(s):	4.1
14.4 Packing group	
Packing group	II
Packing instruction (cargo aircraft)	448
Max net qty / pkg	50.00 kg
Packing instruction (passenger aircraft)	445
Max net qty / pkg	15.00 kg
14.5 Environmental hazards	YES
14.6 Special precautions for user	
For personal protection see section 8.	

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.

FENTACARE 2231 EF

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SECTION 15: Regulatory information**15.1 Notification status**

Inventory Information	Status
United States TSCA Inventory	- On TSCA Inventory
Canadian Domestic Substances List (DSL)	- This product contains one or several components listed in the Canadian NDSL.
Australia Inventory of Chemical Substances (AICS)	- On the inventory, or in compliance with the inventory
Japan. CSCL - Inventory of Existing and New Chemical Substances	- On the inventory, or in compliance with the inventory
Korea. Korean Existing Chemicals Inventory (KECI)	- On the inventory, or in compliance with the inventory
China. Inventory of Existing Chemical Substances in China (IECSC)	- On the inventory, or in compliance with the inventory

15.2 Federal Regulations**US. EPA EPCRA SARA Title III****SARA HAZARD DESIGNATION SECTIONS 311/312 (40 CFR 370)**

Fire Hazard	yes
Reactivity Hazard	no
Sudden Release of Pressure Hazard	no
Acute Health Hazard	yes
Chronic Health Hazard	yes

Section 313 Toxic Chemicals (40 CFR 372.65)

The following components are subject to reporting levels established by SARA Title III, Section 313:

Ingredients	CAS-No.	Concentration
Isopropanol	67-63-0	10- 20%

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)

This material does not contain any components with a SARA 302 RQ.

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

This material does not contain any components with a section 304 EHS RQ.

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

Ingredients	CAS-No.	Reportable quantity
Methane, chloro-	74-87-3	100 lb
Unlisted Hazardous Wastes - Characteristic of Ignitability	Not Assigned	100 lb

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

WARNING: This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.

Ingredients	CAS-No.
Methane, chloro-	74-87-3

SECTION 16: Other information**NFPA (National Fire Protection Association) - Classification**

Health	2 moderate
Flammability	3 serious
Instability or Reactivity	0 minimal

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

Health	2 moderate
Flammability	3 serious
Reactivity	0 minimal
PPE	Determined by User; dependent on local conditions

Further information

- Product evaluated under the US GHS format.
- Product evaluated under the US GHS format.
- Product evaluated under the US GHS format.

Date Prepared: 06/01/2016

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

- PEL	Permissible exposure limit (PEL)
- ST	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
- STEL	Short-term exposure limit
- 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

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose, and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in any other manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.