

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

**1.1. Product identifier**

Product form : Mixture  
 Trade name : Vesta-Syde® SQ st - Quaternary Ammonium Disinfectant  
 Product code : 6340

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

**1.2.1. Relevant identified uses**

Industrial/Professional use spec : For professional use only  
 Use of the substance/mixture : Hard surface disinfectant

**1.2.2. Uses advised against**

No additional information available.

**1.3. Details of the supplier of the safety data sheet**

Manufacturer:

STERIS Corporation  
 P. O. Box 147, St. Louis, MO 63166, US  
 Telephone Number for Information: 1-800-444-9009 (Customer Service - Scientific Products)  
 US Emergency Telephone No.1-314-535-1395 (STERIS); 1-800-424-9300 (CHEMTREC)

**1.4. Emergency telephone number**

Emergency number : +44 (0) 1895 622 639

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**GHS-US classification**

Acute Tox. 4 (Oral) H302  
 Skin Corr. 1B H314  
 Eye Dam. 1 H318  
 Acute Tox. 4 (Inhalation) H332  
 STOT SE 3 H335

Full text of H-phrases: see Section 16.

**2.2. Label elements**

This label is required by the EPA under FIFRA. Refer to Section 15.

**GHS-US labelling**

Hazard pictograms (GHS-US) :



Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H302 - Harmful if swallowed.  
 H314 - Causes severe skin burns and eye damage.  
 H332 - Harmful if inhaled.  
 H335 - May cause respiratory irritation.

Precautionary statements (GHS-US) : P270 - Avoid breathing mist, spray, vapors.  
 P270 - Do not eat, drink or smoke when using this product.  
 P280 - Wear protective gloves/protective clothing and eye/face protection.  
 P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 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 or doctor/physician.  
 P501 - Dispose of contents/container to comply with applicable local, national and international regulation.

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#### 2.3. Other hazards

No additional information available.

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable.

#### 3.2. Mixture

Name	Product identifier	%	GHS-US classification
Didecyldimethylammonium chloride	(CAS No) 7173-51-5	7 - 13	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314
Ethanolamine	(CAS No) 141-43-5	5 - 10	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation: mist), H332 Skin Corr. 1B, H314 STOT SE 3, H335
n-Propanol	(CAS No) 71-23-8	1 - 5	Flam. Liq. 2, H225 Eye Dam. 1, H318 STOT SE 3, H336
1-Octanamine, N,N-dimethyl-, N-oxide	(CAS No) 2605-78-9	1 - 5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
Alanine, N,N-bis(carboxymethyl)-, trisodium salt	(CAS No) 164462-16-2	1 - 5	Skin Corr. 1B, H314 Aquatic Chronic 3, H412
Ethanol	(CAS No) 64-17-5	0.5 - 1.5	Flam. Liq. 2, H225

Full text of R- and H-phrases: see Section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove patient to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. Immediately get medical attention.
First-aid measures after skin contact	: Immediately flush skin with plenty of water for at least 15 minutes. Remove/Take off immediately all contaminated clothing. Obtain medical attention if irritation persists.
First-aid measures after eye contact	: In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing. In all cases of doubt, or when symptoms persist, seek medical advice.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Give water to drink if victim completely conscious/alert. Immediately call a POISON CENTER or doctor/physician.

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

Symptoms/injuries	: Corrosive to eyes and skin. Causes severe skin burns and eye damage.
Symptoms/injuries after skin contact	: Severe skin irritant. Effects of skin contact may include: irritation and burn feeling.
Symptoms/injuries after eye contact	: Causes serious eye damage.

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

No additional information available.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire. Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

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

Fire hazard	: Not sustaining combustion. Flash point (°C): 44.
Hazardous decomposition products in case of fire	: Thermal decomposition generates: Fume. Carbon monoxide. Carbon dioxide. Nitrogen oxides.

#### 5.3. Advice for firefighters

Firefighting instructions	: Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. Use water spray or fog for cooling exposed containers.
Protective equipment for firefighters	: Use self-contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.

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#### SECTION 6: Accidental release measures

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

General measures : Do not breathe fumes, vapors. Avoid contact with skin, eyes and clothes.

##### 6.1.1. For non-emergency personnel

Protective equipment : Wear protective gloves and eye/face protection. For further information refer to Section 8: Exposure-controls/personal protection.

Emergency procedures : Stop leak if safe to do so. Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

##### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

##### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Leftovers: Neutralize with sodium bicarbonate. Neutralize with dry sodium carbonate. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

##### 6.4. Reference to other sections

See Heading 8: Exposure controls and personal protection. Concerning disposal elimination, see Seticon 13 : Disposal Considerations.

#### SECTION 7: Handling and storage

##### 7.1. Precautions for safe handling

Precautions for safe handling : Read label before use. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Do not breathe gas, fumes, vapour or spray. Avoid contact during pregnancy/while nursing.

Hygiene measures : Wash hands thoroughly after handling. Take care for general good hygiene and housekeeping. Do not eat, drink or smoke when using this product.

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

Technical measures : A washing facility/water for eye and skin cleaning purposes should be present. Provide adequate ventilation. Comply with applicable regulations.

Storage conditions : Do not store near heat or open flame. Keep only in the original container in a cool, well ventilated place. Keep out of reach of children. Store away from freezing (avoid freezing during storage). Keep container tightly closed. If frozen, thaw and mix thoroughly before use.

Storage area : Store in dry, cool, well-ventilated area.

Special rules on packaging : Correctly labelled.

##### 7.3. Specific end use(s)

No additional information available.

#### SECTION 8: Exposure controls/personal protection

##### 8.1. Control parameters

Ethanol (64-17-5)		
USA IDLH	US IDLH (ppm)	3300 ppm (10% LEL)
USA NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (TWA) (ppm)	1000 ppm
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (ppm)	1000 ppm

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n-Propanol (71-23-8)		
USA IDLH	US IDLH (ppm)	800 ppm
USA NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	500 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (TWA) (ppm)	200 ppm
USA NIOSH	NIOSH REL (STEL) (mg/m <sup>3</sup> )	625 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (STEL) (ppm)	250 ppm
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	500 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (ppm)	200 ppm

Ethanolamine (141-43-5)		
USA IDLH	US IDLH (ppm)	30 ppm
USA NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	8 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (TWA) (ppm)	3 ppm
USA NIOSH	NIOSH REL (STEL) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (STEL) (ppm)	6 ppm
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	6 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (ppm)	3 ppm

#### 8.2. Exposure controls

- Appropriate engineering controls : Ensure adequate ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
- Personal protective equipment : Personal protective equipment should be selected based upon the conditions under which this product is handled or used. The following pictograms represent the minimum requirements for personal protective equipment. Protective clothing. Gloves. Protective goggles.



- Hand protection : Wear rubber gloves.
- Eye protection : Wear chemical goggles or safety glasses.
- Skin and body protection : Wear suitable protective clothing.
- Respiratory protection : Work in well-ventilated zones or use proper respiratory protection. Wear appropriate mask.
- Other information : Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : Clear
- Color : Light yellow
- Odor : Mild odor characteristic
- Odor threshold : No data available
- pH (Cconcentrated) : 11.7 Alkali (lye)
- pH solution (1% Solution) : 10.9
- Relative evaporation rate (butylacetate=1) : No data available
- Melting point : No data available
- Freezing point : No data available
- Boiling point : No data available
- Flash point : 44°C The sustaining combustion test for liquids was carried out (liquid does not sustain combustion). The result is negative.
- Self ignition temperature : No data available
- Decomposition temperature : No data available
- Flammability (solid, gas) : Not sustaining combustion
- Vapor pressure : No data available
- Relative vapor density at 20 °C : No data available

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Relative density	: No data available
Density	: ca. 0.984 g/ml Specific Gravity
Solubility	: Water: Completely soluble
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available.

#### 9.2. Other information

No additional information available.

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Thermal decomposition generates: Corrosive vapors.

#### 10.2. Chemical stability

Stable under normal conditions of use. Recommended storage temperature.

#### 10.3. Possibility of hazardous reactions

Not established.

#### 10.4. Conditions to avoid

Store in a cool dry place. Avoid Freezing. Direct sunlight. Extremely high or low temperatures.

#### 10.5. Incompatible materials

No additional information available.

#### 10.6. Hazardous decomposition products

Thermal decomposition generates: Carbon dioxide. Carbon monoxide. Nitrogen oxides. Corrosive vapors. Fume.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity : Harmful if swallowed. Harmful if inhaled.

Vesta-Syde® SQ st- Quaternary Ammonium Disinfectant	
LD50 oral	1030 mg/kg
LD50 dermal	> 5000 g/kg
LC50 inhalation rat (mg/l)	> 5.18 mg/l
ATE (oral)	500,000 mg/kg bodyweight
ATE (dust,mist)	1,500 mg/l/4h

Didecyldimethylammonium chloride (7173-51-5)	
ATE (oral)	500,000 mg/kg bodyweight

Ethanolamine (141-43-5)	
LD50 oral rat	1720 mg/kg
LD50 dermal rabbit	1 ml/kg
ATE (oral)	500,000 mg/kg bodyweight
ATE (dermal)	1100,000 mg/kg bodyweight
ATE (dust,mist)	1,500 mg/l/4h

n-Propanol (71-23-8)	
LD50 oral rat	1870 mg/kg
LC50 inhalation rat (ppm)	> 13548 ppm/4h

Ethanol (64-17-5)	
LC50 inhalation rat (mg/l)	124.7 mg/l/4h
ATE (dust,mist)	124.700 mg/l/4h

Skin corrosion/irritation	: Causes severe skin burns and eye damage. pH: 11.7 Alkali (lye) (Concentrated)
Serious eye damage/irritation	: Causes serious eye damage. pH: 11.7 Alkali (lye) (Concentrated)

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Respiratory or skin sensitisation	: Not classified Based on available data, the classification criteria are not met.
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met.
Carcinogenicity	: Not classified Based on available data, the classification criteria are not met.
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met.
Specific target organ toxicity (single exposure)	: May cause respiratory irritation Based on available data, the classification criteria are not met.
Specific target organ toxicity (repeated exposure)	: Not classified Based on available data, the classification criteria are not met.
Aspiration hazard	: Not classified Based on available data, the classification criteria are not met.
Potential Adverse human health effects and symptoms	: Not classified Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ethanolamine (141-43-5)	
LC50 fishes 1	227 mg/l (Exposure time: 96 h - Species: Pimephales promelas [Flow-through])
EC50 Daphnia 1	65 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 other aquatic organisms 1	15 mg/l (Exposure time: 72 h - Species: Desmodesmus subspicatus)
LC50 fish 2	3684 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [Static])

Ethanol (64-17-5)	
LC50 fishes 1	15300 mg/l (US EPA method E03-05, dynamic, 48h)
LC50 other aquatic organisms 1	5012 (Daphnia) (ASTME 729-80, static, 48h)
EC50 other aquatic organisms 2	5800 (Bacteria) (Rajini, et al., 1989, 4h)
ErC50 (algae)	275 mg/l (OECD 201, 3d)
NOEC chronic fish	245 (QSAR, 30d)
NOEC chronic crustacea	9.6 mg/l (Daphnia) (Mount & Norberg, 1984, 9d)

n-Propanol (71-23-8)	
LC50 fishes 1	4480 mg/l (Exposure time: 96 h - Species: Pimephales promelas [Flow-through])
EC50 Daphnia 1	3642 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 Daphnia 2	3339 - 3977 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

### 12.2. Persistence and degradability

Vesta-Syde® SQ st - Quaternary Ammonium Disinfectant	
Persistence and degradability	The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

### 12.3. Bioaccumulative potential

Vesta-Syde® SQ st- Quaternary Ammonium Disinfectant	
Bioaccumulative potential	Not established

Ethanol (64-17-5)	
Log Kow	-0.35 (Shake Flask method OECD 107)
Bioaccumulative potential	Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected.

n-Propanol (71-23-8)	
Log Pow	0.25 – 0.34

Ethanolamine (141-43-5)	
Log Pow	-1.91 (at 25 °C)

### 12.4. Mobility in soil

No additional information available.

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#### 12.5. Other information

Avoid release to the environment.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste disposal recommendations : PESTICIDE DISPOSAL: Triple rinse as follows: Empty the remaining contents and dispose of as pesticide waste. Fill the container ¼ full with water and recap. Shake for 10 seconds. Dispose of rinsate as pesticide waste. Drain for 10 seconds after the flow begins to drip. Repeat this process two more times.

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Additional information : CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. Clean container promptly after emptying.

Do not contaminate food, feed, or water by storage or disposal.

Ecology - waste materials : Avoid release to the environment.

### SECTION 14: Transport information

In accordance with DOT

Transport document description : UN 1903 DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (Quaternary Ammonium Compounds), 8, PG III

Proper Shipping Name : DISINFECTANT, LIQUID, CORROSIVE, N.O.S.

UN-No.(DOT) : 1903

UN-No.(DOT) : UN1903

Department of Transportation (DOT) Hazard Classes : 8 - Class 8 - Corrosive material 49 CFR 173.136

Hazard labels (DOT) : 8 - Corrosive



Packing group (DOT) : III

#### Additional information

Other information : No supplementary information available.

#### Road transport

Class: ADR/RID : UN 1903 DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (Quaternary Ammonium Compounds), 8, PG III

#### Sea transport

Class: IMDG : UN 1903 DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (Quaternary Ammonium Compounds), 8, PG III

#### Air transport

Class: ICAO/IATA : UN 1903 DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (Quaternary Ammonium Compounds), 8, PG III

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#### SECTION 15: Regulatory information

##### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EPA FIFRA Pesticide Product Notice	This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.
EPA FIFRA Signal Word	Danger
EPA FIFRA Hazard Statements	Keep Out of Reach of Children
EPA FIFRA Precautionary Statements	Hazards to Humans and Domestic Animals

##### 15.1. Chemical safety assessment

No chemical safety assessment has been carried out.

##### 15.2. US State regulations

WARNING : This product contains a chemical known to the State of California to cause cancer.

#### SECTION 16: Other information

Other information : None

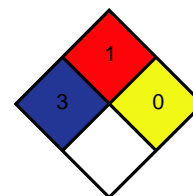
Full text of R-, H- and EUH-phrases:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation: mist)	Acute toxicity (inhalation: mist), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity (single exposure), Category 3
H225	Highly flammable liquid and vapour
H302	Harmful if swallowed
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H412	Harmful to aquatic life with long lasting effects

NFPA health hazard : 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

NFPA fire hazard : 1 - Materials require considerable preheating before ignition and combustion can occur.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and is not reactive with water.



SDS EU (REACH Annex II)

The information on this sheet is not a specification and does not guarantee specific properties. The information is intended to provide general knowledge as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product or where instruction or recommendations are not followed.