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

1.1 Product identifier

- Trade name MIRATAINE LHS

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

Uses of the Substance/Mixture

- Surfactants for various applications
- Cleaning agent

Remarks

- This product may rapidly contribute towards a highly hazardous environment within a confined space (e.g. Within ISO tanks, reactors, silos, etc.).
- Risk assessments should be conducted prior to handling this product / material.

1.3 Details of the supplier of the safety data sheet

Company

Syensqo USA LLC.,
2564 US HIGHWAY 1,LAWRENCE, NJ 08648 USA,
Tel.: +1.609.860.4000

E-mail address

For questions about SDS content: manager.sds@syensqo.com
For all other topics use: www.syensqo.com/en/form/documentation

1.4 Emergency telephone number

400 120 6011 (toll-free, access from China only)
NRCC
CHINA (DOMESTIC ONLY): +86 532 8388 9090 (Qingdao)
MULTI LINGUAL EMERGENCY NUMBER (24/7)
Europe/Latin America/Africa:+44 1235 239 670 (UK)
Middle East/Africa speaking Arabic: +44 1235 239 671 (UK)
Asia Pacific : +65 3158 1074 (Singapore)
China : 400 120 6011 (toll-free, access from China only)
North America : +1 800 424 9300

SECTION 2: Hazards identification

2.1 Emergency overview

Appearance	Form:	Aqueous solution
	Physical state:	liquid
	Colour:	light yellow
	Odour	slight

May be harmful if swallowed., Causes skin irritation., Causes serious eye damage., Very toxic to aquatic life., Toxic to aquatic life with long lasting effects.

2.2 Classification of the substance or mixture

GHS Classification and Labeling: Follow GB 15258 and GB 30000 series standard

Acute toxicity, Category 5	H303: May be harmful if swallowed.
Skin irritation, Category 2	H315: Causes skin irritation.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Short-term (acute) aquatic hazard, Category 1	H400: Very toxic to aquatic life.
Long-term (chronic) aquatic hazard, Category 2	H411: Toxic to aquatic life with long lasting effects.

2.3 Label elements

GHS Classification and Labeling: Follow GB 15258 and GB 30000 series standard

Hazardous products which must be listed on the label

- CAS-No. 72869-77-3 Alkyl Hydroxysultaine
- CAS-No. 112-18-5 N,N-dimethyldodecan-1-amine
- CAS-No. 112-75-4 N,N-dimethyltetradecan-1-amine

Pictogram

Signal word

- Danger

Hazard statements

- H303	May be harmful if swallowed.
- H315	Causes skin irritation.
- H318	Causes serious eye damage.
- H400	Very toxic to aquatic life.
- H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

General
- None

Prevention

- P264	Wash skin thoroughly after handling.
- P273	Avoid release to the environment.
- P280	Wear protective gloves/ eye protection/ face protection.

Response

- P301 + P332 + P317	IF SWALLOWED or if skin irritation occurs: Get medical help.
- P302 + P352	IF ON SKIN: Wash with plenty of water.
- P305 + P354 + P338 + P317	IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical help.

- P362 + P364 Take off contaminated clothing and wash it before reuse.
- P391 Collect spillage.

Storage
- None

Disposal
- P501 Dispose of contents/ container to an approved waste disposal plant.

2.4 Physical and chemical hazards

- Not classified based on available information.

2.5 Health hazards

May be harmful if swallowed. Causes skin irritation. Causes serious eye damage.

2.6 Environmental hazards

Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

2.7 Other hazards which do not result in classification

None known.

SECTION 3: Composition/information on ingredients

3.1 Substance

- Not applicable, this product is a mixture.

3.2 Mixture

Information on Components and Impurities

Chemical name	CAS-No.	Identification number	GHS Classification	Concentration [%]
Alkyl Hydroxysultaine	72869-77-3	Not applicable	Acute toxicity, Category 5; H303 Serious eye damage, Category 1; H318 Short-term (acute) aquatic hazard, Category 1; H400 Long-term (chronic) aquatic hazard, Category 2; H411 M-Factor(Acute) : 1	>= 40 - < 50
Sodium chloride	7647-14-5	Not applicable	Acute toxicity, Category 5; H303	>= 5 - < 10
N,N-dimethyldodecan-1-amine	112-18-5	Not applicable	Flammable liquids, Category 4; H227 Acute toxicity, Category 4; H302 Skin corrosion, Sub-category 1B; H314 Serious eye damage, Category 1; H318 Short-term (acute) aquatic hazard, Category 1; H400 Long-term (chronic) aquatic hazard, Category 1; H410 M-Factor(Acute) : 10 M-Factor(Chronic) : 1	>= 1 - < 2.5
N,N-dimethyltetradecan-1-amine	112-75-4	Not applicable	Acute toxicity, Category 4; H302 Skin corrosion, Sub-category 1B; H314 Serious eye damage, Category 1; H318 Short-term (acute) aquatic hazard, Category 1; H400 Long-term (chronic) aquatic hazard, Category 1; H410 M-Factor(Acute) : 100 M-Factor(Chronic) : 1	>= 0.3 - < 0.5

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

- Plan first aid action before beginning work with this product.

- First aider needs to protect himself.
- Rescuers should wear PPE during rescue and decontamination of victims.

- Do not leave the victim unattended until the arrival of medical responders.
- Show this safety data sheet to the doctor in attendance.

- Place affected clothing in a sealed bag for subsequent decontamination.

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 plenty of water.

- If skin irritation occurs, seek medical advice/attention.

In case of eye contact

- Rinse immediately with plenty of water, also under the eyelids.
- Take victim immediately to hospital.
- Continue rinsing eyes during transport to hospital.

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

5.1 Extinguishing media

Suitable extinguishing media

- Extinguishing media - small fires
- Water spray
- Carbon dioxide (CO2)
- Multi-purpose powders
- Alcohol-resistant foam

- Extinguishing media - large fires
- Water spray
- Multi-purpose powders
- Alcohol-resistant foam

Unsuitable extinguishing media

- Do not use a solid water stream as it may scatter and spread fire.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting

- The pressure in sealed containers can increase under the influence of heat.

- In case of heating:
- Harmful or toxic vapours are released.

- Hazardous decomposition products formed under fire conditions.
- (following evaporation of water)
- 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)

5.3 Advice for firefighters

Special protective equipment for firefighters

- Wear full protective clothing and self-contained breathing apparatus.
- Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing.

Specific fire fighting methods

- Stay upwind.

- Fight fire with normal precautions from a reasonable distance.

- 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.

- 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.

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

- Wear as appropriate:
- Tightly fitting safety goggles.

- Stop leak if safe to do so.

- If spillage occurs on the public highway, indicate the danger and notify the authorities (police, fire brigade).
- Isolate spill or leak area in a radius of at least 50 meters.

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

6.2 Environmental precautions

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

- Local authorities should be advised if significant spillages cannot be contained.
- If the product contaminates rivers and lakes or drains inform respective authorities.
- If the spill area is porous, the contaminated material must be collected for subsequent treatment or disposal.

6.3 Methods and materials for containment and cleaning up

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

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

- Wash non-recoverable 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 as hazardous waste in compliance with local and national regulations.

Additional advice

- Material can create slippery conditions.

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.
- Risk assessments, along with appropriate identification and implementation of the corresponding risk controls, are to be conducted by competent person(s) on the intended work processes involving this product.

- This product may rapidly contribute towards a highly hazardous environment within a confined space (e.g. Within ISO tanks, reactors, silos, etc.).

- The product must only be handled by specifically trained employees.

- Advice on safe handling

- If dust production may be expected from further processing, handling or by other means:
- Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.
- Provide for appropriate exhaust ventilation and dust collection at machinery.
- 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).

- Any anticipated splash and/or aerosol generation should be contained using suitable engineering controls.

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

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

- For personal protection, see section 8.

Hygiene measures

- Handle in accordance with good industrial hygiene and safety practice.
- Use clean, well-maintained personal protection equipment.
- Regular cleaning of equipment, work area and clothing.
- When using do not eat, drink or smoke.
- Smoking, eating and drinking should be prohibited in the application area.
- Wash hands before breaks and immediately after handling the product.
- Contaminated work clothing should not be allowed out of the workplace.

- The user is responsible for monitoring the working environment in accordance with local laws and regulations.
- The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the use of administrative controls.
- Air sampling and / or biological monitoring of the substances shown in Section 8.1 are to be conducted using methods accepted by local competent authorities responsible for workplace safety and health.

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 bunded area.
- The floor of the storage area should be impermeable and designed to form a water-tight basin.

- Keep locked up or in an area accessible only to qualified or authorised persons.

- 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).

7.3 Specific end use(s)

- no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

- Contains no substances with occupational exposure limit values above their regulatory reporting threshold.

8.2 Exposure controls

Control measures

Engineering measures

- Risk assessments, along with appropriate identification and implementation of the corresponding risk controls, are to be conducted by competent person(s) on the intended work processes involving this product.
- 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.
- Enclosure and/or isolation of emission source.
- Effective exhaust ventilation system.
- Extract at emission point.
- Ensure adequate ventilation.
- Ensure that extracted air cannot be returned to the workplace through the ventilation system.
- Any anticipated splash and/or aerosol generation should be contained using suitable engineering controls.
- If dust production may be expected from further processing, handling or by other means:
- 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).

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.

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.
- Use only personal protective equipment that conforms to international/ national standards (KOSHA, etc.).

Suitable material

- Nitrile rubber
- Neoprene
- PVC
- butyl-rubber

Eye protection

- Tightly fitting safety goggles.

Skin and body protection

- Lightweight protective clothing.
- Footwear protecting against chemicals.
- Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

- Handle in accordance with good industrial hygiene and safety practice.
- Use clean, well-maintained personal protection equipment.
- Regular cleaning of equipment, work area and clothing.
- When using do not eat, drink or smoke.
- Smoking, eating and drinking should be prohibited in the application area.
- Wash hands before breaks and immediately after handling the product.
- Contaminated work clothing should not be allowed out of the workplace.
- The user is responsible for monitoring the working environment in accordance with local laws and regulations.

- The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the use of administrative controls.
- Air sampling and / or biological monitoring of the substances shown in Section 8.1 are to be conducted using methods accepted by local competent authorities responsible for workplace safety and health.

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.

Environmental exposure controls

- Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems.
- Local authorities should be advised if significant spillages cannot be contained.
- If the product contaminates rivers and lakes or drains inform respective authorities.
- If the spill area is porous, the contaminated material must be collected for subsequent treatment or disposal.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Form	Aqueous solution
Colour	light yellow
Odour	slight
Odour Threshold	No data available
Melting point/freezing point	Freezing point: < 0 °C
Initial boiling point and boiling range	100 °C (1,013.25 hPa)
Flammability (solid, gas)	No data available
Flammability (liquids)	No data available
Flammability/Explosive limit	No data available
Flash point	> 94 °C closed cup
Auto-ignition temperature	No data available
Decomposition temperature	No data available
pH	7.0 - 8.0 (5 %)
Viscosity	No data available
Solubility	Water solubility: soluble
Partition coefficient: n-octanol/water	No data available
Vapour pressure	26.66 hPa (25 °C)

Density	1.1 g/cm3 (20 °C)
Relative density	No data available
Relative vapor density	1.105 (25 °C)
Particle characteristics	No data available
Evaporation rate (Butylacetate = 1)	No data available

9.2 Other information

Oxidizing properties	Not considered as oxidizing, Structure-activity relationship (SAR)

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

- No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

- 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
- Strong reducing agents
- Strong acids
- Strong bases

10.6 Hazardous decomposition products

- On combustion or on thermal decomposition (pyrolysis) releases:
- Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).
- Nitrogen oxides (NOx)

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity	The product has a low acute toxicity According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.
Acute inhalation toxicity	Not classified as hazardous for acute inhalation toxicity according to GHS. According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.

Acute dermal toxicity	Not classified as hazardous for acute dermal toxicity according to GHS. According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.
Acute toxicity (other routes of administration)	Not applicable
Skin corrosion/irritation	Irritating to skin. According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.
Serious eye damage/eye irritation	Risk of serious damage to eyes. According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.
Respiratory or skin sensitisation	Does not cause skin sensitisation. According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.

Mutagenicity

Genotoxicity in vitro	Product is not considered to be genotoxic. According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.
Genotoxicity in vivo	Product is not considered to be genotoxic. According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.
Carcinogenicity	The product is not considered to be carcinogenic. According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.

Toxicity for reproduction and development

Toxicity to reproduction/Fertility	The product is not considered to affect fertility. According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.
Developmental Toxicity/Teratogenicity	The product is not considered to be toxic for development. According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.

STOT

STOT - single exposure	The substance or mixture is not classified as specific target organ toxicant, single exposure.

According to the available data on the components.
According to the classification criteria for mixtures.
Unpublished reports and/or published data.

STOT - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
According to the available data on the components.
According to the classification criteria for mixtures.
Unpublished reports and/or published data.

The product itself has not been tested.

Experience with human exposure
No data available

Aspiration toxicity
Not classified for aspiration toxicity according to GHS criteria.

Aspiration toxicity
According to the available data on the components, According to the classification criteria for mixtures., Internal evaluation.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic Compartment

Acute toxicity to fish

Alkyl Hydroxysultaine

By analogy
Unpublished reports
Toxic to fish.

Acute toxicity to daphnia and other aquatic invertebrates

Alkyl Hydroxysultaine

EC50 - 48 h : 8.00 mg/l - Crustaceans
static test
Analytical monitoring: no
Method: ISO 14669 and PARCOM method
Marine species
tested on C12
Unpublished internal reports
Toxic to aquatic invertebrates.

Toxicity to aquatic plants

Alkyl Hydroxysultaine

ErC50 - 72 h : 0.16 mg/l - Skeletonema costatum (marine diatom)
static test
Analytical monitoring: no
Method: ISO 10253
tested on C12
Unpublished internal reports
Very toxic to algae.

NOEC - 72 h : 0.07 mg/l - Skeletonema costatum (marine diatom)
static test
Analytical monitoring: no
Method: ISO 10253
tested on C12
Unpublished internal reports
Toxic to algae with long lasting effects.

ErC50 - 72 h : 0.47 mg/l - Raphidocelis subcapitata (freshwater green alga)
static test
Analytical monitoring: yes
End point: Growth rate
Method: OECD Test Guideline 201
Very toxic to algae.
Fresh water
Unpublished internal reports

NOErC - 72 h : 0.11 mg/l - Raphidocelis subcapitata (freshwater green alga)
static test
Analytical monitoring: yes
End point: Growth rate
Method: OECD Test Guideline 201
Harmful to algae with long lasting effects.
Fresh water
Unpublished internal reports

Toxicity to microorganisms No data available

Chronic toxicity to fish No data available

Chronic toxicity to daphnia and other aquatic invertebrates

Alkyl Hydroxysultaine

By analogy
Unpublished reports
Harmful to aquatic invertebrates with long lasting effects.

M-Factor

Alkyl Hydroxysultaine

Acute 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

Alkyl Hydroxysultaine

Ready biodegradability study:
Method: OECD Test Guideline 310
63.2 % - 28 Days
The substance fulfills the criteria for ultimate aerobic biodegradability and ready biodegradability
Theoretical carbon dioxide production
Inoculum: activated sludge
Conc. in standard unit mg/l: 19.6 mg/l
tested on C12
The 10-day window does not apply to complex, multi-constituent substances with structurally similar constituents.
Unpublished internal reports

Degradability assessment

Alkyl Hydroxysultaine

The product is considered to be rapidly degradable in the environment

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water

Alkyl Hydroxysultaine	Not potentially bioaccumulable
Bioconcentration factor (BCF)	No data available

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

Alkyl Hydroxysultaine	Not persistent, bioaccumulative, and toxic (PBT). Not very persistent and very bioaccumulative (vPvB).

12.6 Other adverse effects

Ecotoxicity assessment

Short-term (acute) aquatic hazard

Alkyl Hydroxysultaine	Very toxic to aquatic life.

Long-term (chronic) aquatic hazard

Alkyl Hydroxysultaine	Toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product Disposal

- Dispose of as hazardous waste in compliance with local and national regulations.

Prohibition

- Do not discharge directly into the environment.
- Do not dispose of with domestic refuse.

Advice on cleaning and disposal of packaging

- Empty remaining contents.

- Clean using steam.
- Monitor the residual vapours.
- 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.

- In accordance with IMDG regulations, containers or tankers, which have not been cleaned or deodorized and which previously contained a hazardous product, must either be labelled or have hazard signs.

- In accordance with RID/ADR regulations containers or tankers, which have not been cleaned or deodorized and which previously contained a hazardous product, must either be labelled or have hazard signs.

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

Prohibition
- Do NOT dispose of untreated packaging with industrial waste.
- Do not dispose of with domestic refuse.

SECTION 14: Transport information

CN_DG

14.1 UN number	UN 3082
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Alkyl Hydroxysultaine, N,N-dimethyltetradecan-1-amine)
14.3 Transport hazard class Label(s):	9 9
14.4 Packing group Packing group	III
14.5 Environmental hazards	YES

14.6 Special precautions for user

For personal protection, see section 8.

IMDG

14.1 UN number	UN 3082
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Alkyl Hydroxysultaine, N,N-dimethyltetradecan-1-amine)
IMDG Code segregation group	Not Relevant
14.3 Transport hazard class Label(s):	9 9
14.4 Packing group Packing group	III
14.5 Environmental hazards **Marine pollutant**	YES
14.6 Special precautions for user EmS	F-A , S-F

For personal protection, see section 8.

14.7 Transport in bulk vessels according to IMO instruments
No data available

IATA

14.1 UN number	UN 3082
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Alkyl Hydroxysultaine, N,N-dimethyltetradecan-1-amine)
14.3 Transport hazard class	9
Label(s):	9
14.4 Packing group	
Packing group	III
14.5 Environmental hazards	YES
14.6 Special precautions for user	
Packing instruction (cargo aircraft)	964
Max net qty/pkg	450.00 L
Packing instruction (passenger aircraft)	964
Max net qty/pkg	450.00 L

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 transport regulations for hazardous materials, it would be advisable to check their validity with your sales office.

SECTION 15: Regulatory information

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

Following last version of regulations are applicable for the chemical classification, SDS and label:

- Specification for classification and labelling of chemicals, GB 30000 series standard
- General rules for preparation of precautionary label for chemicals, GB 15258
- Safety data sheet for chemical products—Content and order of sections, GB/T 16483
- GB/T 17519 Guidance on the compilation of safety data sheet for chemical products
- Decree No. 591 of the State Council of the People's Republic of China:Regulations on the Control over Safety of Hazardous Chemicals
- List of dangerous goods GB 12268
- Classification and code of dangerous goods GB 6944

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
Australian Inventory of Industrial Chemicals (AIIC)	- One or more components not 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)	- One or more components not listed on inventory
New Zealand. Inventory of Chemical Substances	- One or more components is not listed on the NZIoC inventory. Additional HSNO obligations may apply. Please refer to Section 15 of SDS for New Zealand.
EU. European Registration, Evaluation, Authorization and Restriction of Chemical (REACH)	- When purchased from a Syensqo 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.
EU. European Registration, Evaluation, Authorization and Restriction of Chemical (REACH)	- When purchased from a Syensqo legal entity based in Korea, this product is compliant with "Act on Registration and Evaluation of Chemicals" (AREC or K-REACH, Article 10) as all its components are either excluded, exempt, and/or (pre)registered. When purchased from a legal entity outside of Korea, please contact your local representative for additional information.

SECTION 16: Other information

Full text of H-Statements

- H227: Combustible liquid.
- H302: Harmful if swallowed.
- H303: May be harmful if swallowed.
- H314: Causes severe skin burns and eye damage.
- H315: Causes skin irritation.
- H318: Causes serious eye damage.
- H400: Very toxic to aquatic life.
- H410: Very toxic to aquatic life with long lasting effects.
- H411: Toxic to aquatic life with long lasting effects.

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

- ADR: European Agreement on International Carriage of Dangerous Goods by Road.
- ADN: European Agreement on the International Carriage of Dangerous Goods by Inland Waterways.
- RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
- IATA: International Air Transport Association.
- ICAO-TI: Technical Instructions for Safe Transport of Dangerous Goods by Air.
- IMDG: International Maritime Dangerous Goods.
- TWA: Time weighted average
- ATE: Estimated value of acute toxicity

- EC: European Community number
- CAS: Chemical Abstracts Service.
- LD50: Substance that causes 50% (half) death in the test animals group (Median Fatal Dose).
- LC50: Substance concentration causing 50% (half) death in the test animals group.
- EC50: Effective Concentration of the substance causing the maximum of 50%.
- PBT: Persistent, Bioaccumulative and Toxic substance.
- vPvB: Very Persistent and Very Bioaccumulative.
- GHS/CLP/SEA: Classification, labeling, packaging regulation
- DNEL: Derived No Effect Level
- PNEC: Predicted No Effect Concentration
- STOT: Specific Target Organ Toxicity

Not all acronyms listed above are referenced in this SDS.

Further information

- Distribute new edition to clients
- Update
- See section 1

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. The information exclusively relates to the designated product in its unaltered state. Safety and health hazards may change if such product is used in combination with other materials or in any other manufacturing process. Users are responsible for compliance with all regulations linked to product related activities, and to use the products in accordance with technical instructions given by Syensqo, if any.