TRULUX SAFETY DATA SHEET

Provides critical information on hazardous substances or mixtures.

1.1 COMPANY IDENTIFICATION

Company's name:	Trulux Pty Ltd
Email address:	info@trulux.com.au
Website:	www.trulux.com.au
Contact number:	+61 2 5566 0566

1.2 PRODUCT IDENTIFICATION

Trade name:	Xiameter MEM-0949 Emulsion
SKU:	RMTR-0550A
Classification:	Refer to clause 2

1.3 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Identified uses:	Raw Material
Uses advised against:	No further information available

1.4 DETAILS OF THE SUPPLIER OF THE SUBSTANCE INFORMATION SHEET

Supplier's name:	Trulux Pty Ltd
Website:	www.trulux.com.au
Address:	C3/ 1-3 Rodborough Road, Frenchs Forest NSW 2086 Australia

1.5 EMERGENCY CONTACTS - INSTITUTIONAL CENTRES

Australia	Poisons Information Centre 13 11 26

2 HAZARDS IDENTIFICATION

GHS Classification	
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Short-term (acute) aquatic hazard	Category 1
Long-term (chronic) aquatic hazard	Category 2
GHS label elements	
Hazard pictograms	
Signal word:	DANGER!
Hazard statements	Causes skin irritation. Causes serious eye damage. Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.
Precautionary statements	
Prevention	Wash skin thoroughly after handling. Avoid release to the environment. Wear protective gloves/ eye protection/ face protection.
Response	IF ON SKIN: Wash with plenty of water.

	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER and/or doctor. If skin irritation occurs: Get medical advice/ attention. Take off contaminated clothing and wash it before reuse. Collect spillage.
Disposal	Dispose of contents and/or container to an approved waste disposal plant.

3 COMPOSITION/ INFORMATION ON INGREDIENTS

This product is a mixture.

Component	CAS Number	Concentration
Siloxanes and Silicones, di-Me, polymers with 3-[(2-aminoethyl)amino]propyl silsesquioxanes, hydroxyterminated	68554-54-1	>= 28.0 - <= 33.0 %
Octamethyl Cyclotetrasiloxane	556-67-2	>= 2.0 - <= 2.4 %
Ethoxylated branched C11-14, C13-rich alcohols	78330-21-9	>= 1.4 - <= 2.4 %
Hexadecyltrimethyl ammonium chloride	112-02-7	>= 1.6 - <= 2.0 %
Decamethylcyclopentasiloxane	541-02-6	>= 1.4 - <= 1.8 %
Hexadecyltrimethylammonium acetate	51374-75-5	>= 0.38 - <= 0.56 %
N,N-Dimethyl-1- hexadecanamine-hydrochloride	2016-45-7	>= 0.15 - <= 0.16 %
Hexadecyldimethylamine	112-69-6	>= 0.15 - <= 0.16 %

4 FIRST AID MEASURES

General advice:

First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation:

Move person to fresh air and keep comfortable for breathing; consult a physician.

Skin contact:

Wash off with plenty of water. Suitable emergency safety shower facility should be available in work area.

Eye contact:

Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Obtain prompt medical consultation, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

Ingestion:

Rinse mouth with water. No emergency medical treatment necessary.

Most important symptoms and effects, both acute and delayed:

Causes skin irritation. Causes serious eye damage.

Indication of any immediate medical attention and special treatment needed Notes to physician:

Chemical eye burns may require extended irrigation. Obtain prompt consultation, preferably from an ophthalmologist. If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5 FIRE FIGHTING MEASURES

Hazchem Code

•3Z

Extinguishing media

Suitable extinguishing media:

Alcohol-resistant foam. Carbon dioxide (CO_2). Dry chemical. Water spray.

Unsuitable extinguishing media:

None known

Special hazards arising from the substance or mixture

Hazardous combustion products:

Carbon oxides. Silicon oxides. Nitrogen oxides (NOx). Chlorine compounds.

Unusual Fire and Explosion Hazards:

Exposure to combustion products may be a hazard to health. Fire burns more vigorously than would be expected.

Advice for firefighters

Fire Fighting Procedures:

Use water spray to cool unopened containers. Evacuate area. 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. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Remove undamaged containers from fire area if it is safe to do so.

Special protective equipment for firefighters:

In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Remove all sources of ignition. Use personal protective equipment. Follow safe handling advice and personal protective equipment recommendations.

Environmental precautions:

Do not release the product to the aquatic environment above defined regulatory levels Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up:

Soak up with inert absorbent material. Clean up remaining materials from spill with suitable absorbant. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container. Dispose of saturated absorbent or cleaning materials appropriately, since spontaneous heating may occur.

7 HANDLING AND STORAGE, INCLUDING HOW THE CHEMICAL MAY BE SAFELY USED

Precautions for safe handling:

Do not get on skin or clothing. Avoid inhalation of vapour or mist. Do not swallow. Do not get in eyes. Keep container tightly closed. Take care to prevent spills, waste and minimize release to the environment. Handle in accordance with good industrial hygiene and safety practice. CONTAINERS MAY BE HAZARDOUS WHEN EMPTY. Since emptied containers retain product residue follow all (M)SDS and label warnings even after container is emptied. Use only with adequate ventilation.

Conditions for safe storage:

Keep in properly labelled containers. Store locked up. Keep tightly closed. Strong acids. Strong bases Store in accordance with the particular national regulations.

Do not store with the following product types:

Strong oxidizing agents.

Unsuitable materials for containers:

None known.

8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control parameters

If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

Component	Regulation	Type of listing	Value
Octamethyl Cyclotetrasiloxane	US WEEL	TWA	10 ppm
Decamethylcyclopentasiloxane	US WEEL	TWA	10 ppm

Exposure controls

Engineering controls:

Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Individual protection measures

Eye/face protection:

Use chemical goggles.

Hand protection:

Use chemical resistant gloves classified under standard AS/NZS 2161.10: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Butyl rubber. Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl chloride ("PVC" or "vinyl"). Avoid gloves made of: Polyvinyl alcohol ("PVA"). When prolonged or frequently repeated contact may occur, a glove with a protection class of 4 or higher (breakthrough time greater than 120 minutes according to AS/NZS 2161.10) is recommended. When only brief contact is expected , a glove with a protection class of 1 or higher (breakthrough time greater than 10 minutes according to AS/NZS 2161.10) is recommended. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection:

Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Respiratory protection:

Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. In misty atmospheres, use an approved particulate respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

Other Information:

Selection and use of personal protective equipment should be in accordance with the recommendations in one or more of the relevant Australian/New Zealand Standards, including:

AS/NZS 1336: Eye and face protection – Guidelines.

AS/NZS 1337: Personal eye protection - Eye and face protectors for occupational applications.

AS/NZS 1715: Selection, use and maintenance of respiratory protective equipment.

AS/NZS 2161: Occupational protective gloves.

AS/NZS 2210: Occupational protective footwear.

AS/NZS 4501: Occupational protective clothing Set

9 PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Colour:	White
Odour	Fishy
pH:	7.5
Boiling point (760 mmHg)	100 °C
Flash Point:	closed cup >100 °C
Relative Density (water = 1)	0.99
Kinematic Viscosity	5 cSt at 25 °C
Explosive properties	Not explosive
Oxidizing properties	The substance or mixture is not classified as oxidizing.

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10 STABILITY AND REACTIVITY

Reactivity:	Not classified as a reactivity hazard.
Chemical Stability:	Stable under normal conditions.
Possibility of hazardous reactions:	Can react with strong oxidizing agents.

Incompatible Materials:	Avoid contact with oxidizing materials. Avoid contact with: Strong acids Strong bases
Hazardous decomposition products:	Decomposition products can include and are not limited to: Formaldehyde. Ammonia. hydrogen chloride.

11 TOXICOLOGICAL INFORMATION

Exposure routes

Inhalation, Eye contact, Skin contact, Ingestion.

Acute toxicity (represents short term exposures with immediate effects - no chronic/delayed effects known unless otherwise noted)

Acute Toxicity Endpoints:

Not classified based on available information.

Acute oral toxicity

Information for the Product:

Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

As product: Single dose oral LD50 has not been determined.

Based on information for component(s):

LD50, Rat, > 5,000 mg/kg Estimated.

Information for components:

Siloxanes and Silicones, di-Me, polymers with 3-[(2-aminoethyl)amino]propyl silsesquioxanes, hydroxy-terminated

Single dose oral LD50 has not been determined.

Octamethyl Cyclotetrasiloxane

LD50, Rat, male, > 4,800 mg/kg No deaths occurred at this concentration.

Ethoxylated branched C11-14, C13-rich alcohols

Acute toxicity estimate, 500 mg/kg Expert judgement

Hexadecyltrimethyl ammonium chloride

LD50, Rat, 699 mg/kg

Decamethylcyclopentasiloxane

LD50, Rat, male and female, > 24,134 mg/kg

Hexadecyltrimethylammonium acetate

Based on data from similar materials LD50, Rat, 1,550 mg/kg

N,N-Dimethyl-1-hexadecanamine-hydrochloride

Based on data from similar materials LD50, Rat, 699 mg/kg

Hexadecyldimethylamine

For similar material(s): LD50, Rat, male and female, 1,015 mg/kg

Acute dermal toxicity

Information for the Product:

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product: The dermal LD50 has not been determined.

Based on information for component(s):

LD50, Rabbit, > 5,000 mg/kg Estimated.

Information for components:

Siloxanes and Silicones, di-Me, polymers with 3-[(2-aminoethyl)amino]propyl silsesquioxanes, hydroxy-terminated

The dermal LD50 has not been determined.

Octamethyl Cyclotetrasiloxane

LD50, Rat, male and female, > 2,400 mg/kg No deaths occurred at this concentration.

Ethoxylated branched C11-14, C13-rich alcohols

The dermal LD50 has not been determined.

Hexadecyltrimethyl ammonium chloride

Absorption has not been determined due to corrosivity.

Decamethylcyclopentasiloxane

LD50, Rabbit, male and female, > 2,000 mg/kg No deaths occurred at this concentration.

Hexadecyltrimethylammonium acetate

Based on data from similar materials LD50, Rabbit, 528 mg/kg OECD Test Guideline 402

N,N-Dimethyl-1-hexadecanamine-hydrochloride

Based on data from similar materials LD50, Rabbit, 528 mg/kg

Hexadecyldimethylamine

The dermal LD50 has not been determined.

Acute inhalation toxicity

Information for the Product:

Vapors are primarily water; single exposure is not likely to be hazardous. Mist may cause irritation of upper respiratory tract (nose and throat).

As product: The LC50 has not been determined.

Information for components:

Siloxanes and Silicones, di-Me, polymers with 3-[(2-aminoethyl)amino]propyl silsesquioxanes, hydroxy-terminated

The LC50 has not been determined.

Octamethyl Cyclotetrasiloxane

LC50, Rat, male and female, 4 Hour, dust/mist, 36 mg/l OECD Test Guideline 403

Ethoxylated branched C11-14, C13-rich alcohols

The LC50 has not been determined.

Hexadecyltrimethyl ammonium chloride

The LC50 has not been determined.

Decamethylcyclopentasiloxane

LC50, Rat, male and female, 4 Hour, dust/mist, 8.67 mg/l

Hexadecyltrimethylammonium acetate

Prolonged excessive exposure may cause adverse effects. May cause respiratory tract irritation.

The LC50 has not been determined.

N,N-Dimethyl-1-hexadecanamine-hydrochloride

The LC50 has not been determined.

Hexadecyldimethylamine

The LC50 has not been determined.

Skin corrosion/irritation

Causes skin irritation.

Information for the Product:

Based on information for component(s):

Brief contact may cause moderate skin irritation with local redness.

Information for components:

Siloxanes and Silicones, di-Me, polymers with 3-[(2-aminoethyl)amino]propyl silsesquioxanes, hydroxy-terminated

For similar material(s):

Brief contact may cause skin irritation with local redness.

Octamethyl Cyclotetrasiloxane

Brief contact is essentially nonirritating to skin.

Ethoxylated branched C11-14, C13-rich alcohols

For similar material(s): Prolonged contact may cause slight skin irritation with local redness.

Hexadecyltrimethyl ammonium chloride

Brief contact may cause skin burns. Symptoms may include pain, severe local redness and tissue damage.

Decamethylcyclopentasiloxane

Prolonged contact is essentially nonirritating to skin.

Hexadecyltrimethylammonium acetate

For similar material(s):

Brief contact may cause skin burns. Symptoms may include pain, severe local redness and tissue damage.

N,N-Dimethyl-1-hexadecanamine-hydrochloride

For similar material(s):

Brief contact may cause skin burns. Symptoms may include pain, severe local redness and tissue damage.

Hexadecyldimethylamine

Brief contact may cause skin burns. Symptoms may include pain, severe local redness and tissue damage.

Serious eye damage/eye irritation

Causes serious eye damage.

Information for the Product:

Based on information for component(s):

May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

Information for components:

Siloxanes and Silicones, di-Me, polymers with 3-[(2-aminoethyl)amino]propyl silsesquioxanes, hydroxy-terminated

For similar material(s):

May cause eye irritation. May cause corneal injury.

Octamethyl Cyclotetrasiloxane

Essentially nonirritating to eyes.

Ethoxylated branched C11-14, C13-rich alcohols

For similar material(s):

May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

Hexadecyltrimethyl ammonium chloride

May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

Decamethylcyclopentasiloxane

Essentially nonirritating to eyes.

Hexadecyltrimethylammonium acetate

For similar material(s):

May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

N,N-Dimethyl-1-hexadecanamine-hydrochloride

For similar material(s):

May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

Hexadecyldimethylamine

May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

Sensitization

For skin sensitization:

Not classified based on available information.

For respiratory sensitization:

Not classified based on available information.

Information for components:

Octamethyl Cyclotetrasiloxane

Did not cause allergic skin reactions when tested in guinea pigs.

Ethoxylated branched C11-14, C13-rich alcohols

For skin sensitization:

Did not cause allergic skin reactions when tested in humans.

Hexadecyltrimethyl ammonium chloride

For skin sensitization:

Did not cause allergic skin reactions when tested in guinea pigs.

Decamethylcyclopentasiloxane

Did not demonstrate the potential for contact allergy in mice.

Hexadecyltrimethylammonium acetate

For similar material(s):

Did not cause allergic skin reactions when tested in guinea pigs.

N,N-Dimethyl-1-hexadecanamine-hydrochloride

For similar material(s):

Did not cause allergic skin reactions when tested in guinea pigs.

Specific Target Organ Systemic Toxicity (Single Exposure)

Not classified based on available information.

Information for components:

Siloxanes and Silicones, di-Me, polymers with 3-[(2-aminoethyl)amino]propyl silsesquioxanes, hydroxy-terminated

Available data are inadequate to determine single exposure specific target organ toxicity.

Octamethyl Cyclotetrasiloxane

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Ethoxylated branched C11-14, C13-rich alcohols

Available data are inadequate to determine single exposure specific target organ toxicity.

Hexadecyltrimethyl ammonium chloride

Material is corrosive. Material is not classified as a respiratory irritant; however, upper respiratory tract irritation or corrosivity may be expected.

Decamethylcyclopentasiloxane

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

N,N-Dimethyl-1-hexadecanamine-hydrochloride

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Hexadecyldimethylamine

Material is corrosive. Material is not classified as a respiratory irritant; however, upper respiratory tract irritation or corrosivity may be expected.

Aspiration Hazard

Not classified based on available information.

Information for the Product:

Based on available information, aspiration hazard could not be determined.

Information for components:

Siloxanes and Silicones, di-Me, polymers with 3-[(2-aminoethyl)amino]propyl silsesquioxanes, hydroxy-terminated

Based on available information, aspiration hazard could not be determined.

Octamethyl Cyclotetrasiloxane

May be harmful if swallowed and enters airways.

Ethoxylated branched C11-14, C13-rich alcohols

Based on available information, aspiration hazard could not be determined.

Hexadecyltrimethyl ammonium chloride

Based on physical properties, not likely to be an aspiration hazard.

Decamethylcyclopentasiloxane

Based on physical properties, not likely to be an aspiration hazard.

N,N-Dimethyl-1-hexadecanamine-hydrochloride

Based on available information, aspiration hazard could not be determined.

Hexadecyldimethylamine

Aspiration into the lungs may occur during ingestion or vomiting, causing lung damage or even death due to chemical pneumonia.

Chronic toxicity (represents longer term exposures with repeated dose resulting in chronic/delayed effects - no immediate effects known unless otherwise noted)

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Not classified based on available information.

Information for components:

Octamethyl Cyclotetrasiloxane

In animals, effects have been reported on the following organs:

Kidney. Liver. Respiratory tract. Female reproductive organs.

Hexadecyltrimethyl ammonium chloride

Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

Decamethylcyclopentasiloxane

Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

N,N-Dimethyl-1-hexadecanamine-hydrochloride

For similar material(s):

Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

Hexadecyldimethylamine

Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

Carcinogenicity

Not classified based on available information.

Information for components:

Octamethyl Cyclotetrasiloxane

Results from a 2 year repeated vapour inhalation exposure study to rats of octamethylcyclotetrasiloxane (D4) indicate effects (benign uterine adenomas) in the uterus of female animals. This finding occurred at the highest exposure dose (700 ppm) only. Studies to date have not demonstrated if these effects occur through pathways that are relevant to humans. Repeated exposure in rats to D4 resulted in protoporphyrin accumulation in the liver. Without knowledge of the specific mechanism leading to the protoporphyrin accumulation the relevance of this finding to humans is unknown.

Decamethylcyclopentasiloxane

Results from a 2 year repeated vapour inhalation exposure study to rats of decamethylcyclopentasiloxane (D5) indicate effects (uterine endometrial tumors) in female animals. This finding occurred at the highest exposure dose (160 ppm) only. Studies to date have not demonstrated if this effect occurs through a pathway that is relevant to humans.

Hexadecyldimethylamine

For similar material(s): Did not cause cancer in laboratory animals.

Teratogenicity

Not classified based on available information.

Information for components:

Octamethyl Cyclotetrasiloxane

Did not cause birth defects or any other fetal effects in laboratory animals.

Hexadecyltrimethyl ammonium chloride

For similar material(s):

Did not cause birth defects or any other fetal effects in laboratory animals.

Decamethylcyclopentasiloxane

Did not cause birth defects or any other fetal effects in laboratory animals.

N,N-Dimethyl-1-hexadecanamine-hydrochloride

For similar material(s):

Did not cause birth defects or any other fetal effects in laboratory animals.

Hexadecyldimethylamine

For similar material(s):

Did not cause birth defects or any other fetal effects in laboratory animals.

Reproductive toxicity

Not classified based on available information.

Information for components:

Octamethyl Cyclotetrasiloxane

In laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals. In animal studies, has been shown to interfere with fertility.

Hexadecyltrimethyl ammonium chloride

For similar material(s):

In animal studies, did not interfere with reproduction.

Decamethylcyclopentasiloxane

In animal studies, did not interfere with reproduction.

N,N-Dimethyl-1-hexadecanamine-hydrochloride

For similar material(s):

In animal studies, did not interfere with reproduction.

Hexadecyldimethylamine

For similar material(s): In animal studies, did not interfere with reproduction.

Mutagenicity

Not classified based on available information.

Information for components:

Octamethyl Cyclotetrasiloxane

In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

Hexadecyltrimethyl ammonium chloride

For similar material(s):

In vitro genetic toxicity studies were negative.

Decamethylcyclopentasiloxane

In vitro genetic toxicity studies were negative.

Animal genetic toxicity studies were negative.

N,N-Dimethyl-1-hexadecanamine-hydrochloride

For similar material(s):

In vitro genetic toxicity studies were negative.

Hexadecyldimethylamine

In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

12 ECOLOGICAL INFORMATION

Ecotoxicity

Acute toxicity to aquatic invertebrates

Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 between 0.1 and 1 mg/L in the most sensitive species tested).

EC50, Daphnia magna (Water flea), 48 Hour, 0.97 mg/l, No information available.

Long-term (chronic) aquatic hazard Chronic toxicity to aquatic invertebrates

Based on information for component(s): NOEC, Daphnia magna (Water flea), 21 d, 1 mg/l

Persistence and degradability

Octamethyl Cyclotetrasiloxane

Biodegradability:

Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

10-day Window: Not applicable

Biodegradation: 3.7 %

Exposure time: 28 d

Method: OECD Test Guideline 310

Stability in Water (1/2-life): Hydrolysis, DT50, 3.9 d, pH 7, Half-life Temperature 25 °C, OECD Test Guideline 111

Ethoxylated branched C11-14, C13-rich alcohols

Biodegradability: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

Based on data from similar materials

Biodegradation: 95 %

Exposure time: 28 d

Method: OECD Test Guideline 301F

Hexadecyltrimethyl ammonium chloride

Biodegradability: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

10-day Window: Fail

Biodegradation: > 60 %

Exposure time: 28 d

Method: OECD Test Guideline 301D or Equivalent

Decamethylcyclopentasiloxane

Biodegradability: Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

10-day Window: Not applicable

Biodegradation: 0.14 %

Exposure time: 28 d

Method: OECD Test Guideline 310

Photodegradation

Test Type: Half-life (indirect photolysis)

Sensitization: OH radicals

Atmospheric half-life: 7.15 d

Method: Estimated.

Hexadecyltrimethylammonium acetate

Biodegradability: Based on data from similar materials

Biodegradation: 60 %

Exposure time: 28 d

Method: OECD Test Guideline 301D

N,N-Dimethyl-1-hexadecanamine-hydrochloride

Biodegradability: Based on data from similar materials

Biodegradation: 93.5 %

Exposure time: 28 d

Method: OECD Test Guideline 301B

Hexadecyldimethylamine

Biodegradability: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

For similar material(s): 10-day Window: Fail

Biodegradation: > 60 %

Exposure time: 28 d

Method: OECD Test Guideline 301B or Equivalent

Bioaccumulative potential

Octamethyl Cyclotetrasiloxane

Bioaccumulation: Bioconcentration potential is high (BCF > 3000 or Log Pow between 5 and 7).

Partition coefficient: n-octanol/water(log Pow): 6.49 Measured

Bioconcentration factor (BCF): 12,400 Pimephales promelas (fathead minnow) Measured

Ethoxylated branched C11-14, C13-rich alcohols

Bioaccumulation: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

Partition coefficient: n-octanol/water(log Pow): 6.3 Estimated.

Bioconcentration factor (BCF): 283 Fish Estimated.

Hexadecyltrimethyl ammonium chloride

Bioaccumulation: Based on data from similar materials Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

Partition coefficient: n-octanol/water(log Pow): 3.08 Estimated by Structure-Activity Relationship (SAR).

Bioconcentration factor (BCF): 33 - 160 Lepomis macrochirus (Bluegill sunfish)

Decamethylcyclopentasiloxane

Bioaccumulation: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

Partition coefficient: n-octanol/water(log Pow): 5.2 Measured

Bioconcentration factor (BCF): 2,010 Fish Estimated.

Hexadecyltrimethylammonium acetate

Bioaccumulation: Based on data from similar materials

Partition coefficient: n-octanol/water(log Pow): > 6.91

Hexadecyldimethylamine

Bioaccumulation: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

Partition coefficient: n-octanol/water(log Pow): 4.6 Estimated.

Mobility in Soil

Octamethyl Cyclotetrasiloxane

Partition coefficient (Koc): 16596 OECD Test Guideline 106

Ethoxylated branched C11-14, C13-rich alcohols

Partition coefficient (Koc): 5649 Estimated.

Decamethylcyclopentasiloxane

Partition coefficient (Koc): > 5000 Estimated.

Results of PBT and vPvB assessment

Siloxanes and Silicones, di-Me, polymers with 3-[(2-aminoethyl)amino]propyl silsesquioxanes, hydroxy-terminated

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Octamethyl Cyclotetrasiloxane

Octamethylcyclotetrasiloxane (D4) meets the current criteria for PBT and vPvB under REACh Annex XIII or other regionally specific criteria. However, D4 does not behave similarly to known PBT/vPvB substances. The weight of scientific evidence from field studies shows that D4 is not biomagnifying in aquatic and terrestrial food webs. D4 in air will degrade by reaction with naturally occurring hydroxyl radicals in the atmosphere. Any D4 in air that does not degrade by reaction with hydroxyl radicals is not expected to deposit from the air to water, to land, or to living organisms.

Ethoxylated branched C11-14, C13-rich alcohols

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Hexadecyltrimethyl ammonium chloride

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).

Decamethylcyclopentasiloxane

Decamethylcyclopentasiloxane (D5) meets the current REACh Annex XIII criteria for vPvB. However, D5 does not behave similarly to known PBT/vPvB substances. The weight of scientific evidence from field studies shows that D5 is not biomagnifying in aquatic and terrestrial food webs. D5 in air will degrade by reaction with naturally occurring hydroxyl radicals in the atmosphere. Any D5 in air that does not degrade by reaction with hydroxyl radicals is not expected to deposit from the air to water, to land, or to living organisms. Based on an independent scientific panel of experts, the Canadian Minister of the Environment has concluded that "D5 is not entering the environment in a quantity or concentration or under conditions that have or may have an immediate or long-term harmful effect on the environment or its biological diversity, or that constitute or may constitute a danger to the environment on which life depends".

Hexadecyltrimethylammonium acetate

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

N,N-Dimethyl-1-hexadecanamine-hydrochloride

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Hexadecyldimethylamine

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).

Other adverse effects

Siloxanes and Silicones, di-Me, polymers with 3-[(2-aminoethyl)amino]propyl silsesquioxanes, hydroxy-terminated

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Octamethyl Cyclotetrasiloxane

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Ethoxylated branched C11-14, C13-rich alcohols

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Hexadecyltrimethyl ammonium chloride

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Decamethylcyclopentasiloxane

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Hexadecyltrimethylammonium acetate

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

N,N-Dimethyl-1-hexadecanamine-hydrochloride

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Hexadecyldimethylamine

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

13 DISPOSAL CONSIDERATIONS

Disposal methods:

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device.

Treatment and disposal methods of used packaging:

otherwise disposed of by an approved waste management facility. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. Do not re-use containers for any purpose.

14 TRANSPORT INFORMATION

ADG	
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Hexadecyltrimethyl ammonium chloride, Hexadecyldimethylamine)
UN number	UN 3082
Class	9
Packing group	III
Marine pollutant	Hexadecyltrimethyl ammonium chloride, Hexadecyldimethylamine
Classification for SEA transport (IMO-IMDG):	
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Hexadecyltrimethyl ammonium chloride, Hexadecyldimethylamine)
UN number	UN 3082
Class	9
Packing group	III
Marine pollutant	Hexadecyltrimethyl ammonium chloride, Hexadecyldimethylamine

Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code	Consult IMO regulations before transporting ocean bulk
Classification for AIR transport (IATA/ICAO):	
Proper shipping name	Environmentally hazardous substance, liquid, n.o.s.(Hexadecyltrimethyl ammonium chloride, Hexadecyldimethylamine)
UN number	UN 3082
Class	9
Packing group	III
Hazchem Code	•3Z

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15 REGULATORY AND OTHER INFORMATION

Poison Schedule

Not Scheduled

Australian Inventory of Industrial Chemicals (AIIC)

All substances contained in this product are listed on the Australian Inventory of Industrial Chemicals, or are not required to belisted.

Prohibition/Licensing Requirements

There is no applicable prohibition, authorisation and restricted use requirements, including for carcinogens referred to in Schedule 10 of the model WHS Act and Regulations.

16 OTHER INFORMATION

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition or other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. This sheet completes the technical sheets but it does not replace them. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied is made and Trulux Pty Ltd assumes no legal responsibility or liability whatsoever resulting from its use. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. This listing must not be considered exhaustive. It does exonerate the user from ensuring that other legal obligations than those mentioned do not exist, relating to the use and storage of the product for which he solely is responsible. The information and recommendations contained herein are to the best of the manufacturer's knowledge and belief accurate and reliable as of the date indicated. No representation warranty or guarantee, however, is made with regard to accuracy, reliability or completeness. Conditions of use of the material are under the control of the user; therefore, it is the user's responsibility to satisfy itself as to the suitability and completeness of such information for its own particular use.