SAFETY DATA SHEET
according to the Globally Harmonized System

H50V Lyse, RFID

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	03.12.2025	11604164-00001	Date of first issue: 03.12.2025

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	H50V Lyse, RFID
Product code	:	1440110 H50V Lyse 200 mL, RFID 1440109 H50V Lyse 500 mL, RFID

Manufacturer or supplier's details

Company	:	Boule Medical AB
Address	:	Domnarvsgatan 4 Spånga 163 53
Telephone	:	+46 8 7447700
Emergency telephone	:	Access Code: 60262 (Americas Non-Specific) +1 760 476 3961 (Middle East/Africa) +1 760 476 3959 (Asia Pacific Non-Specific) +1 760 476 3960 (Non-Region Specific) +1 760 476 3971
E-mail address	:	product-stewardship@boule.com

Recommended use of the chemical and restrictions on use

Recommended use	:	For Veterinary In Vitro Diagnostic Use
Restrictions on use	:	Not applicable

2. HAZARDS IDENTIFICATION

GHS Classification

Skin corrosion/irritation	:	Category 3
Reproductive toxicity	:	Category 1B
Short-term (acute) aquatic hazard	:	Category 1
Long-term (chronic) aquatic hazard	:	Category 2

GHS label elements

Hazard pictograms :

Signal Word : Danger

Hazard Statements : H316 Causes mild skin irritation.
H360FD May damage fertility. May damage the unborn child.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements :

Prevention:

P203 Obtain, read and follow all safety instructions before use.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P318 IF exposed or concerned, get medical advice.
P332 + P317 If skin irritation occurs: Get medical help.
P391 Collect spillage.

Storage:

P405 Store locked up.

Disposal:

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

Other hazards which do not result in classification

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
Dodecyltrimethylammonium chloride	112-00-5	>= 2.5 - < 5
Boric acid	10043-35-3	>= 0.3 - < 1
Tetradonium bromide	1119-97-7	>= 0.25 - < 1
Borax	1303-96-4	>= 0.1 - < 0.3

4. FIRST AID MEASURES

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice.

If inhaled : If inhaled, remove to fresh air.

Get medical attention.

In case of skin contact	:	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.
In case of eye contact	:	Flush eyes with water as a precaution. Get medical attention if irritation develops and persists.
If swallowed	:	If swallowed, DO NOT induce vomiting. Get medical attention. Rinse mouth thoroughly with water.
Most important symptoms and effects, both acute and delayed	:	Causes mild skin irritation. May damage fertility. May damage the unborn child. No information available.
Protection of first-aiders	:	First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).
Notes to physician	:	Treat symptomatically and supportively.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Not applicable Will not burn
Unsuitable extinguishing media	:	Not applicable Will not burn
Specific hazards during fire fighting	:	Exposure to combustion products may be a hazard to health.
Hazardous combustion products	:	Carbon oxides Chlorine compounds Nitrogen oxides (NOx)
Specific extinguishing methods	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.
Special protective equipment for fire-fighters	:	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	:	Use personal protective equipment. Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).
Environmental precautions	:	Avoid release to the environment. 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. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. 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. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

7. HANDLING AND STORAGE

Technical measures	:	See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
Local/Total ventilation	:	If sufficient ventilation is unavailable, use with local exhaust ventilation.
Advice on safe handling	:	Do not get on skin or clothing. Do not breathe vapors or spray mist. Do not swallow. Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment Keep container tightly closed. Take care to prevent spills, waste and minimize release to the environment.
Conditions for safe storage	:	Keep in properly labeled containers. Store locked up. Keep tightly closed. Store in accordance with the particular national regulations.

Materials to avoid : Do not store with the following product types:
Self-reactive substances and mixtures
Organic peroxides
Explosives
Gases

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Boric acid	10043-35-3	TWA (Inhalable particulate matter)	2 mg/m³ (Borate)	ACGIH
		STEL (Inhalable particulate matter)	6 mg/m³ (Borate)	ACGIH
Borax	1303-96-4	TWA (Inhalable particulate matter)	2 mg/m³ (Borate)	ACGIH
		STEL (Inhalable particulate matter)	6 mg/m³ (Borate)	ACGIH

Engineering measures : Minimize workplace exposure concentrations.
If sufficient ventilation is unavailable, use with local exhaust ventilation.

Personal protective equipment

Respiratory protection : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.

Filter type : Particulates type

Hand protection

Material : Chemical-resistant gloves

Remarks : Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Eye protection : Wear the following personal protective equipment:
Safety glasses

Skin and body protection	:	Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential. Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).
Hygiene measures	:	If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place. When using do not eat, drink or smoke. Wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Color	:	transparent
Odor	:	odorless
Odor Threshold	:	No data available
pH	:	2.20 - 3.20 Concentration: 100 %
Melting point/freezing point	:	0 °C
Initial boiling point and boiling range	:	100 °C
Flash point	:	boils before flash
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable
Flammability (liquids)	:	Will not burn
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	0.1 hPa
Relative vapor density	:	1.004
Relative density	:	No data available

Density	:	1.004 g/cm³
Solubility(ies)		
Water solubility	:	completely soluble
Partition coefficient: n-octanol/water	:	Not applicable
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, kinematic	:	No data available
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Particle characteristics		
Particle size	:	Not applicable

10. STABILITY AND REACTIVITY

Reactivity	:	Not classified as a reactivity hazard.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	None known.
Conditions to avoid	:	None known.
Incompatible materials	:	None.
Hazardous decomposition products	:	No hazardous decomposition products are known.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg

Method: Calculation method

Components:

Dodecyltrimethylammonium chloride:

Acute oral toxicity	:	LD50 (Rat, female): 681 mg/kg Method: OECD Test Guideline 401 Remarks: The test was conducted equivalent or similar to guideline

Boric acid:

Acute oral toxicity	:	LD50 (Rat): 3,450 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): > 2.03 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity	:	LD50 (Rabbit): > 2,000 mg/kg Assessment: The substance or mixture has no acute dermal toxicity

Tetradonium bromide:

Acute oral toxicity	:	LD50 (Rat): 390 mg/kg Method: OECD Test Guideline 401 Remarks: The test was conducted equivalent or similar to guideline
Acute dermal toxicity	:	LD50 (Rabbit): > 2,000 mg/kg Remarks: Based on data from similar materials

Borax:

Acute oral toxicity	:	LD50 (Rat): 3,450 - 4,080 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): > 2.03 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403
Acute dermal toxicity	:	LD50 (Rabbit): > 2,000 mg/kg Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation

Causes mild skin irritation.

Components:

Dodecyltrimethylammonium chloride:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	Skin irritation
Remarks	:	The test was conducted according to guideline

Boric acid:

Species	:	Rabbit
Result	:	No skin irritation

Tetradonium bromide:

Species	:	Rabbit
Result	:	Skin irritation

Borax:

Species	:	Rabbit
Result	:	No skin irritation

Serious eye damage/eye irritation

Not classified based on available information.

Components:

Dodecyltrimethylammonium chloride:

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	Irritation to eyes, reversing within 21 days
Remarks	:	The test was conducted according to guideline

Boric acid:

Species	:	Rabbit
Result	:	No eye irritation

Tetradonium bromide:

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	Irreversible effects on the eye
Remarks	:	The test was conducted according to guideline Based on data from similar materials

Borax:

Species	:	Rabbit
Result	:	Irritation to eyes, reversing within 21 days

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Components:

Dodecyltrimethylammonium chloride:

Test Type	:	Direct Peptide Reactivity Assay (DPRA)
Method	:	OECD Test Guideline 442C
Result	:	negative
Remarks	:	The test was conducted according to guideline
Test Type	:	KeratinoSens assay
Method	:	OECD Test Guideline 442D
Result	:	negative
Remarks	:	The test was conducted according to guideline

Boric acid:

Test Type	:	Buehler Test
Routes of exposure	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	negative

Tetradonium bromide:

Test Type	:	Maximization Test
Routes of exposure	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	negative
Remarks	:	The test was conducted according to guideline Based on data from similar materials

Borax:

Test Type	:	Buehler Test
Routes of exposure	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	negative

Germ cell mutagenicity

Not classified based on available information.

Components:

Dodecyltrimethylammonium chloride:

Genotoxicity in vitro	:	Test Type: Bacterial reverse mutation assay (AMES) Method: OECD Test Guideline 471 Result: negative Remarks: The test was conducted equivalent or similar to guideline Test Type: In vitro mammalian cell gene mutation test

Result: negative

Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro)
Result: negative

Boric acid:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Result: equivocal

Test Type: Chromosome aberration test in vitro
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Ingestion
Result: negative

Tetradonium bromide:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative
Remarks: The test was conducted according to guideline
Based on data from similar materials

Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative
Remarks: The test was conducted according to guideline
Based on data from similar materials

Borax:

Genotoxicity in vitro : Test Type: In vitro sister chromatid exchange assay in mammalian cells
Result: negative
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

Carcinogenicity

Not classified based on available information.

Components:

Boric acid:

Species	:	Mouse
Application Route	:	Ingestion
Exposure time	:	103 weeks
Result	:	negative

Borax:

Species	:	Mouse
Application Route	:	Ingestion
Exposure time	:	2 Years
Result	:	negative
Remarks	:	Based on data from similar materials

Reproductive toxicity

May damage fertility. May damage the unborn child.

Components:

Dodecyltrimethylammonium chloride:

Effects on fetal development	:	Test Type: Embryo-fetal development Species: Rabbit Application Route: Ingestion Result: negative

Boric acid:

Effects on fertility	:	Test Type: Three-generation reproduction toxicity study Species: Rat Application Route: Ingestion Result: positive
Effects on fetal development	:	Test Type: Embryo-fetal development Species: Rabbit Application Route: Ingestion Result: positive
Reproductive toxicity - Assessment	:	Clear evidence of adverse effects on sexual function and fertility, based on animal experiments., Clear evidence of adverse effects on development, based on animal experiments.

Tetradonium bromide:

Effects on fertility	:	Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test Species: Rat Application Route: Ingestion Method: OECD Test Guideline 422 Result: negative

Remarks: Based on data from similar materials

Effects on fetal development : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 422
Result: negative
Remarks: Based on data from similar materials

Borax:

Effects on fertility : Test Type: Three-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Result: positive

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rat
Application Route: Ingestion
Result: positive

Reproductive toxicity - Assessment : Clear evidence of adverse effects on development, based on animal experiments., Clear evidence of adverse effects on sexual function and fertility, based on animal experiments.

STOT-single exposure

Not classified based on available information.

Components:

Tetradonium bromide:

Assessment : May cause drowsiness or dizziness.
Remarks : Based on data from similar materials

STOT-repeated exposure

Not classified based on available information.

Components:

Tetradonium bromide:

Target Organs : Gastrointestinal tract
Assessment : Shown to produce significant health effects in animals at concentrations of >10 to 100 mg/kg bw.

Routes of exposure : Ingestion
Target Organs : Gastrointestinal tract
Assessment : Shown to produce significant health effects in animals at concentrations of >10 to 100 mg/kg bw.

Repeated dose toxicity

Components:

Dodecyltrimethylammonium chloride:

Species	:	Rat
LOAEL	:	> 25 mg/kg
Application Route	:	Ingestion
Exposure time	:	1 y
Remarks	:	No test guideline followed Based on data from similar materials

Boric acid:

Species	:	Rat
NOAEL	:	100 mg/kg
LOAEL	:	334 mg/kg
Application Route	:	Ingestion
Exposure time	:	2 y

Tetradonium bromide:

Species	:	Rat
NOAEL	:	> 30 - 300 mg/kg
Application Route	:	Skin contact
Exposure time	:	28 Days
Method	:	Regulation (EC) No. 440/2008, Annex, B.7
Remarks	:	The test was conducted according to guideline Based on data from similar materials

Borax:

Species	:	Rat
NOAEL	:	100 mg/kg
LOAEL	:	334 mg/kg
Application Route	:	Ingestion
Exposure time	:	2 y

Aspiration toxicity

Not classified based on available information.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Dodecyltrimethylammonium chloride:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): > 0.1 - 1 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 Remarks: The test was conducted equivalent or similar to guideline

Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.46 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : ErC50 (Scenedesmus capricornutum (fresh water algae)): 0.036 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: The test was conducted according to guideline

NOEC (Scenedesmus capricornutum (fresh water algae)): 0.01 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: The test was conducted according to guideline

M-Factor (Acute aquatic toxicity) : 10

Toxicity to microorganisms : EC50 (activated sludge): > 10 - 100 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209
Remarks: The test was conducted according to guideline
Based on data from similar materials

M-Factor (Chronic aquatic toxicity) : 1

Boric acid:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 74 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Ceriodaphnia dubia (water flea)): 102 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 52.4 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

NOEC (Pseudokirchneriella subcapitata (green algae)): 17.5 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Toxicity to microorganisms : EC10: 35.4 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209

Toxicity to fish (Chronic toxicity) : NOEC: 6.4 mg/l
Exposure time: 34 d
Species: Danio rerio (zebra fish)
Method: OECD Test Guideline 210

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 10.8 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea)

Tetradonium bromide:

Toxicity to fish	:	LC50 (Danio rerio (zebra fish)): > 1.81 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 Remarks: The test was conducted according to guideline
Toxicity to daphnia and other aquatic invertebrates	:	LC50 (Daphnia magna (Water flea)): 22 µg/l Exposure time: 48 h Method: OECD Test Guideline 202 Remarks: The test was conducted according to guideline
Toxicity to algae/aquatic plants	:	EC10 (Raphidocelis subcapitata (freshwater green alga)): 2.16 µg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: The test was conducted according to guideline ErC50 (Raphidocelis subcapitata (freshwater green alga)): 5.38 µg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: The test was conducted according to guideline
M-Factor (Acute aquatic toxicity)	:	100
Toxicity to microorganisms	:	EC50 (Photobacterium phosphoreum): 0.28 mg/l Exposure time: 30 min
M-Factor (Chronic aquatic toxicity)	:	1

Borax:

Toxicity to fish	:	LC50 (Oncorhynchus kisutch (coho salmon)): 447 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 133 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	NOEC (Dunaliella tertiolecta (marine algae)): 50 mg/l Exposure time: 10 d
Toxicity to microorganisms	:	EC50: > 175 mg/l Exposure time: 3 h Method: OECD Test Guideline 209
Toxicity to fish (Chronic toxicity)	:	NOEC: 13 mg/l Exposure time: 96 d

Species: Danio rerio (zebra fish)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 18 mg/l
Exposure time: 14 d
Species: Daphnia magna (Water flea)

Persistence and degradability

Components:

Dodecyltrimethylammonium chloride:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 64.5 %
Exposure time: 28 d
Method: OECD Test Guideline 301B
Remarks: The test was conducted equivalent or similar to guideline

Tetradonium bromide:

Biodegradability : Result: Readily biodegradable.
Remarks: Based on data from similar materials

Bioaccumulative potential

Components:

Dodecyltrimethylammonium chloride:

Bioaccumulation : Species: Oncorhynchus mykiss (rainbow trout)
Bioconcentration factor (BCF): < 500
Remarks: No test guideline followed
Based on data from similar materials

Partition coefficient: n-octanol/water : log Pow: 1.22
Remarks: Calculation

Boric acid:

Bioaccumulation : Species: Cyprinus carpio (Carp)
Bioconcentration factor (BCF): <= 3.2
Method: OECD Test Guideline 305

Partition coefficient: n-octanol/water : log Pow: -1.09

Tetradonium bromide:

Partition coefficient: n-octanol/water : log Pow: 2.2
Remarks: Calculation

Borax:

Partition coefficient: n-octanol/water : log Pow: -1.53

Mobility in soil

No data available

Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	Do not dispose of waste into sewer. Dispose of in accordance with local regulations.
Contaminated packaging	:	Empty containers should be taken to an approved waste handling site for recycling or disposal. If not otherwise specified: Dispose of as unused product.

14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dodecyltrimethylammonium chloride, Tetradonium bromide)
Class	:	9
Packing group	:	III
Labels	:	9
Environmentally hazardous	:	yes

IATA-DGR

UN/ID No.	:	UN 3082
Proper shipping name	:	Environmentally hazardous substance, liquid, n.o.s. (Dodecyltrimethylammonium chloride, Tetradonium bromide)
Class	:	9
Packing group	:	III
Labels	:	Miscellaneous
Packing instruction (cargo aircraft)	:	964
Packing instruction (passenger aircraft)	:	964
Environmentally hazardous	:	yes

IMDG-Code

UN number	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dodecyltrimethylammonium chloride, Tetradonium bromide)
Class	:	9
Packing group	:	III
Labels	:	9
EmS Code	:	F-A, S-F

Marine pollutant : yes

Transport in bulk according to IMO instruments

Not applicable for product as supplied.

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

15. REGULATORY INFORMATION

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

16. OTHER INFORMATION

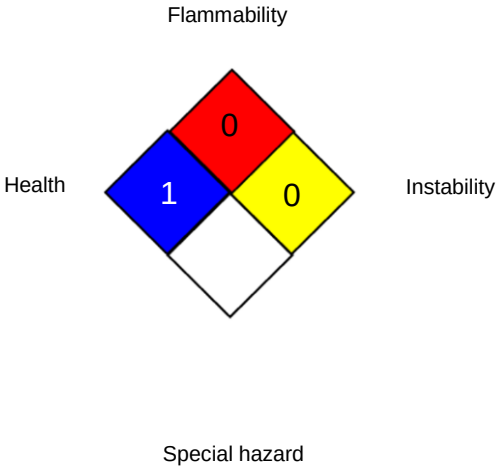
Revision Date : 03.12.2025

Date format : dd.mm.yyyy

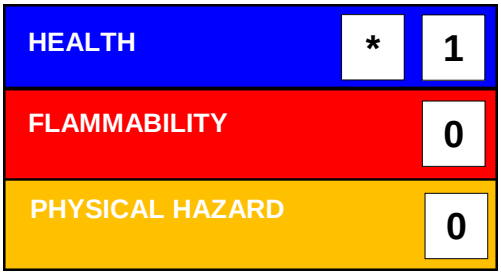
Further information

Sources of key data used to compile the Material Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, http://echa.europa.eu/

NFPA:



HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

ACGIH / TWA : 8-hour, time-weighted average

ACGIH / STEL : Short-term exposure limit

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardization; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organization for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MERCOSUR - The Agreement for the Facilitation of the Transport of Dangerous Goods; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

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