

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Issue date: 6/2/2011 Revision date: 5/25/2023 Supersedes: 4/5/2021 Version: 3.5

## **SECTION 1: Identification**

1.1. Identification	
Product form Product name CAS-No. Product code Formula	<ul> <li>Mixture</li> <li>CHLOROFORM-D (D, 99.8%) +1% V/V TMS</li> <li>67-66-3</li> <li>DLM-7TA</li> <li>CHCl3</li> </ul>
1.2. Recommended use and restrictions o	n use
No additional information available	
1.3. Supplier	
Cambridge Isotope Laboratories, Inc. 50 Frontage Rd 01810 ANDOVER, MA, 01810 USA T 1-800-322-1174 <u>cilsales@isotope.com</u> - <u>www.isotope.com</u>	
Emergency number	: 1-703-741-5970

## **SECTION 2: Hazard(s) identification**

2.1. Classification of the substance or mixture

#### **GHS US classification**

Acute toxicity (oral) Category 4	H302	Harmful if swallowed
Acute toxicity (inhalation) Category 3	H331	Toxic if inhaled
Skin corrosion/irritation Category 2	H315	Causes skin irritation
Serious eye damage/eye irritation Category 2A	H319	Causes serious eye irritation
Carcinogenicity Category 2	H351	Suspected of causing cancer (Dermal, Inhalation, oral)
Reproductive toxicity Category 2	H361	Suspected of damaging fertility or the unborn child
Specific target organ toxicity - Single exposure, Category 3, Narcosis	H336	May cause drowsiness or dizziness
Specific target organ toxicity (repeated exposure) Category 1	H372	Causes damage to organs (central nervous system, kidneys, liver) through prolonged or repeated exposure (Dermal, Inhalation, oral)
Hazardous to the aquatic environment – Acute Hazard Category 3 Full text of H statements : see section 16	H402	Harmful to aquatic life

Chemtrec 1-800-424-9300 24 hours

2.2. GHS Label elements, including precautionary statements

#### **GHS US labeling**

Hazard pictograms (GHS US)



Signal word (GHS US)

: Danger

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Hazard statements (GHS US)	: H302 - Harmful if swallowed
	H315 - Causes skin irritation
	H319 - Causes serious eye irritation
	H331 - Toxic if inhaled
	H336 - May cause drowsiness or dizziness
	H351 - Suspected of causing cancer (Dermal, Inhalation, oral)
	H361 - Suspected of damaging fertility or the unborn child
	H372 - Causes damage to organs (central nervous system, kidneys, liver) through prolonged o
	repeated exposure (Dermal, Inhalation, oral)
	H402 - Harmful to aquatic life
Precautionary statements (GHS US)	: P201 - Obtain special instructions before use.
	P202 - Do not handle until all safety precautions have been read and understood.
	P260 - Do not breathe dust, fume, gas, mist, spray, vapors.
	P261 - Avoid breathing dust, fume, gas, mist, spray, vapors.
	P264 - Wash Both hands thoroughly after handling.
	P270 - Do not eat, drink or smoke when using this product.
	P271 - Use only outdoors or in a well-ventilated area.
	P273 - Avoid release to the environment.
	P280 - Wear protective clothing, protective gloves.
	P301+P312 - If swallowed: Call a poison center or doctor if you feel unwell.
	P302+P352 - If on skin: Wash with plenty of water.
	P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.
	P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove
	contact lenses, if present and easy to do. Continue rinsing.
	P308+P313 - If exposed or concerned: Get medical advice/attention.
	P311 - Call a poison center or doctor.
	P312 - Call a poison center or doctor if you feel unwell.
	P314 - Get medical advice/attention if you feel unwell.
	P321 - Specific treatment (see Hazard pictograms (CLP) on this label).
	P330 - Rinse mouth.
	P332+P313 - If skin irritation occurs: Get medical advice/attention.
	P337+P313 - If eye irritation persists: Get medical advice/attention.
	P362 - Take off contaminated clothing and wash before reuse.
	P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
	P405 - Store locked up.
	P501 - Dispose of contents/container to Comply with applicable regulations.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

## **SECTION 3: Composition/Information on ingredients**

### 3.1. Substances

Not applicable

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3.2. Mixtures			
Name	Product identifier	%	GHS US classification
CHLOROFORM-D (D, 99.8%)	CAS-No.: 67-66-3	99	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Inhalation), H331 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Carc. 2, H351 Repr. 2, H361 STOT SE 3, H336 STOT RE 1, H372
TETRAMETHYLSILANE 99.9%	CAS-No.: 75-76-3	1	Flam. Liq. 1, H224

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures		
4.1. Description of first aid measures		
First-aid measures general First-aid measures after inhalation First-aid measures after skin contact First-aid measures after eye contact First-aid measures after ingestion	<ul> <li>Move out of dangerous area. Consult a physician and show this safety data sheet.</li> <li>Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.</li> <li>Wash with soap and plenty of water. Consult a physician.</li> <li>Flush eye with water for 15 minutes. Get medical attention.</li> <li>Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.</li> </ul>	
4.2. Most important symptoms and effects	(acute and delayed)	
Potential Adverse human health effects and symptoms Symptoms/effects after inhalation Symptoms/effects after skin contact Symptoms/effects after eye contact Symptoms/effects after ingestion	<ul> <li>This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.</li> <li>May be harmful if inhaled. Causes respiratory tract irritation.</li> <li>Harmful if absorbed through skin. Causes skin irritation.</li> <li>Causes eye irritation.</li> <li>Harmful if swallowed.</li> </ul>	
4.3. Immediate medical attention and special treatment, if necessary		
No additional information available		
SECTION 5: Fire-fighting measures		
5.1. Suitable (and unsuitable) extinguishing media		

Suitable extinguishing media

: Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

### 5.2. Specific hazards arising from the chemical

No additional information available

# 5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting

: Do not enter fire area without proper protective equipment, including respiratory protection.

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SECTION 6: Accidental release measures		
6.1. Personal precautions, protective equipr	nent and emergency procedures	
6.1.1. For non-emergency personnel		
Emergency procedures	: Use personal protective equipment. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.	
6.1.2. For emergency responders		
No additional information available		
6.2. Environmental precautions		
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.		
6.3. Methods and material for containment and cleaning up		
For containment	: Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.	

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Additional hazards when processed	: Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Normal measures for preventive fire protection.
Hygiene measures	: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
7.2. Conditions for safe storage, including	any incompatibilities
Technical measures	: Keep container tightly closed in a cool, dry and well-ventilated place. Opened containers must be carefully resealed and kept upright to prevent leakage.
Storage conditions	: Store refrigerated (-5 °C to 5 °C). Protect from light.

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

## 8.1. Control parameters

CHLOROFORM-D (D, 99.8%) +1% V/	V TMS (67-66-3)
USA - ACGIH - Occupational Exposure Limits	
Local name	Chloroform
ACGIH OEL TWA [ppm]	10 ppm Confirmed animal carcinogen with unknown relevance to humans.
Remark (ACGIH)	TLV® Basis: Liver & embryo/fetal dam; CNS impair. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)
Regulatory reference	ACGIH 2022
USA - OSHA - Occupational Exposure Limits	
OSHA PEL TWA [2]	2 ppm

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CHLOROFORM-D (D, 99.8%) (67-66-3)		
USA - ACGIH - Occupational Exposure Lim	its	
ACGIH OEL TWA [ppm]	10 ppm Basis: USA. ACGIH Threshold Limit Values (TLV)	
Remark (ACGIH)	Central Nervous system impairment. Liver damage. Embryo/fetal damage. Confirmed animal carcinogen with unknown relevance to humans.	
USA - OSHA - Occupational Exposure Limit	ts	
OSHA PEL TWA [1]	9.78 mg/m <sup>3</sup> Basis: USA. Occupational Exposure Limits (OSHA) Table Z-1 Limits for Air Contaminants - 1910.1000	
OSHA PEL TWA [2]	2 ppm Basis: USA. Occupational Exposure Limits (OSHA) Table Z-1 Limits for Air Contaminants - 19101000	
OSHA PEL C	240 mg/m <sup>3</sup> Basis: USA. Occupational Exposure Limits (OSHA) Table Z-1 Limits for Air Contaminants.	
OSHA PEL C [ppm]	50 ppm Basis: USA. Occupational Exposure Limits (OSHA) Table Z-1 Limits for Air Contaminants.	
Remark (OSHA)	The value in mg/m3 is approximate. Ceiling limit is to be determined from breathing-zone air samples. Value: PEL Control Parameters: 2 ppm / 9.78 mg/m3 Basis: California permissible exposure limits for chemical contaminants (Title 8, Article 107)	
USA - NIOSH - Occupational Exposure Lim	its	
NIOSH REL STEL	9.78 mg/m <sup>3</sup> Basis: USA. NIOSH Recommended Exposure Limits	
NIOSH REL STEL [ppm]	2 ppm Basis: USA. NIOSH Recommended Exposure Limits	
Remark (NIOSH)	Potential Occupational Carcinogen. See Appendix A.	
TETRAMETHYLSILANE 99.9% (75-76-3)		
USA - ACGIH - Occupational Exposure Lim	its	
ACGIH chemical category	No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH.	

## 8.2. Appropriate engineering controls

No additional information available

8.3. Individual protection measures/Personal protective equipment

### Personal protective equipment:

Gloves. Protective clothing. Protective goggles. Self-contained breathing apparatus.

### Eye protection:

Wear safety glasses with side shields (or goggles) and a face shield.

#### Skin and body protection:

Wear complete suit protecting against chemicals according to concentration and amount of substance. Use suitable gloves. Use proper glove removal technique. Wash and dry hands.

### Respiratory protection:

Wear appropriate NIOSH/MSHA approved respirator.

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Personal protective equipment symbol(s):



## **SECTION 9: Physical and chemical properties**

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

Physical state	: Liquid
Appearance	: Liquid, clear.
Color	: Colorless
Odor	: Mixture contains one or more component(s) which have the following odour:
Odor threshold	: No data available
рН	: No data available
Melting point	: -63 °C (-81 °F)
Freezing point	: No data available
Boiling point	: 60.5 – 61.5 °C (140.9 - 142.7 °F)
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: 213.3 hPa (160.0 mmHg) at 20.0 °C (68.0 °F)
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Molecular mass	: 120.38 g/mol (Labeled)
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: 1.97
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

#### 9.2. Other information

No additional information available

## **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

No additional information available

**10.2. Chemical stability** 

Six months after receipt if stored as stated in "Storage" section. Re-QC after six months.

**10.3. Possibility of hazardous reactions** 

No additional information available

**10.4. Conditions to avoid** 

No additional information available

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### **10.5. Incompatible materials**

Strong oxidizing agents, Strong bases, Magnesium, Sodium/Sodium oxides, Lithium.

**10.6. Hazardous decomposition products** 

Formed under fire conditions: Carbon oxides, Hydrogen chloride gas. Phosgene.

SECTION 11: Toxicological information		
11.1. Information on toxicological effects		
Acute toxicity (oral):Acute toxicity (dermal):Acute toxicity (inhalation):	Harmful if swallowed. Not classified Toxic if inhaled.	
CHLOROFORM-D (D, 99.8%) +1% V/V TMS (67-66-3)		
LD50 oral rat	695 mg/kg	
LD50 dermal rabbit	> 20000 mg/kg	
LC50 Inhalation - Rat	47702 mg/m³ 4 h	
ATE US (oral)	695 mg/kg body weight	
ATE US (gases)	700 ppmV/4h	
ATE US (vapors)	3 mg/l/4h	
ATE US (dust, mist)	0.5 mg/l/4h	
CHLOROFORM-D (D, 99.8%) (67-66-3)		
LD50 oral rat	908 mg/kg Remarks: Behavioral: Change in motor activity (specific assay). Behavioral: Ataxia Lungs, Thorax, or Respiration: Respiratory stimulation.	
LD50 dermal rabbit	> 20000 mg/kg	
ATE US (oral)	908 mg/kg body weight	
ATE US (gases)	700 ppmV/4h	
ATE US (vapors)	3 mg/l/4h	
ATE US (dust, mist)	0.5 mg/l/4h	
TETRAMETHYLSILANE 99.9% (75-76-3)		
LD50 oral rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)	
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: other:	
LC50 Inhalation - Rat	> 21.3 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: other:	
Skin corrosion/irritation       :         Serious eye damage/irritation       :         Respiratory or skin sensitization       :         Germ cell mutagenicity       :         Carcinogenicity       :	Causes skin irritation. Causes serious eye irritation. Not classified Not classified Suspected of causing cancer (Dermal, Inhalation, oral).	
CHLOROFORM-D (D, 99.8%) +1% V/V TMS (67-66-3)		
IARC group	2B - Possibly carcinogenic to humans	
National Toxicology Program (NTP) Status	Reasonably anticipated to be Human Carcinogen	

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CHLOROFORM-D (D, 99.8%) (67-66-3)		
Carcinogenicity, oral, rat	Tumorigenic: Carcinogenic by RTECS criteria. Leukemia.	
IARC group	2B - Possibly carcinogenic to humans	
National Toxicology Program (NTP) Status	Reasonably anticipated to be Human Carcinogen	
Reproductive toxicity	Suspected of damaging fertility or the unborn child.	
STOT-single exposure	: May cause drowsiness or dizziness.	
CHLOROFORM-D (D, 99.8%) (67-66-3)		
STOT-single exposure	May cause drowsiness or dizziness.	
STOT-repeated exposure	: Causes damage to organs (central nervous system, kidneys, liver) through prolonged or repeated exposure (Dermal, Inhalation, oral).	
CHLOROFORM-D (D. 99.8%) (67-66-3)		

STOT-repeated exposure	Causes damage to organs (central nervous system, kidneys, liver) through prolonged or repeated exposure (Inhalation, oral, Dermal).	
Aspiration hazard	: Not classified	
Viscosity, kinematic	: No data available	
Potential Adverse human health effects and symptoms	: This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.	
Symptoms/effects after inhalation	: May be harmful if inhaled. Causes respiratory tract irritation.	
Symptoms/effects after skin contact	: Harmful if absorbed through skin. Causes skin irritation.	
Symptoms/effects after eye contact	: Causes eye irritation.	
Symptoms/effects after ingestion	: Harmful if swallowed.	

## **SECTION 12: Ecological information**

## 12.1. Toxicity

CHLOROFORM-D (D, 99.8%) +1% V/V TMS (67-66-3)			
LC50 - Fish [1]	162 mg/l Leuciscus idus (Golden orfe) - 48 h		
EC50 - Crustacea [1]	79 mg/l Daphnia magna (Water flea) - 48 h		
ErC50 algae	13.3 mg/l		
NOEC chronic fish	0.059 mg/l		
CHLOROFORM-D (D, 99.8%) (67-66-3)			
LC50 - Fish [1]	162 mg/l Leuciscus idus (Golden orfe) - 48 h		
LC50 - Other aquatic organisms [1]	97 mg/l Other fish - 96 h		
EC50 - Crustacea [1]	79 mg/l Daphnia magna (Water flea) - 24 h		
EC50 - Other aquatic organisms [1]	51.6 mg/l Immobilization EC50 - Daphnia magna (Water flea) - 48 h		
LC50 - Fish [2]	121 mg/l Danio rerio (Zebra fish) - 96 h		
ErC50 algae	500 mg/l 24 h		
LOEC (acute)	Inhalation - Rat - male - 500 ppm - 6 h		
NOEC (chronic)	122 mg/l Oryzias latipes (Japanese rice fish) - 10 d		
NOEC chronic fish	24 mg/l Oncorhynchus mykiss (Rainbow trout) - 96 h		
NOEC chronic algae	120 mg/l Daphnia magna (Water flea) - 11 d		

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TETRAMETHYLSILANE 99.9% (75-76-3)			
LC50 - Fish [1]	1.9 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)		
EC50 - Crustacea [1]	> 103 mg/l Test organisms (species): Daphnia magna		
EC50 72h - Algae [1]	<ul> <li>&gt; 0.0079 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)</li> </ul>		
12.2. Persistence and degradability			
TETRAMETHYLSILANE 99.9% (75-76-3)			
Not rapidly degradable			
12.3. Bioaccumulative potential			
CHLOROFORM-D (D, 99.8%) +1% V/V TMS (6	67-66-3)		
Partition coefficient n-octanol/water (Log Pow) 1.97			
CHLOROFORM-D (D, 99.8%) (67-66-3)			
BCF - Fish [1]	-0.11 mg/l Lepomis macrochirus (Bluegill) - 14 d		
Bioconcentration factor (BCF REACH)	6		
Partition coefficient n-octanol/water (Log Pow)	1.97		
TETRAMETHYLSILANE 99.9% (75-76-3)			
Partition coefficient n-octanol/water (Log Pow)	3.24 Source: ChemIDplus		
12.4. Mobility in soil			
No additional information available			
12.5. Other adverse effects			

Other adverse effects

: An environmental hazard cannot be excluded in the event of an unprofessional handling or disposal. Harmful to aquatic life.

SECTION 13: Disposal considerations	
13.1. Disposal methods	
Regional legislation (waste)	: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact licensed disposal company to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an after burner and scrubber.
Product/Packaging disposal recommendations	: Dispose of as unused product.

SECTION 14: Transport information	
In accordance with DOT / TDG / IMDG / IATA	

14.1. UN number	
DOT NA No	: UN1888
UN-No. (TDG)	: UN1888
UN-No. (IMDG)	: 1888
IN-No. (IMDG)	: 1888
IN-No. (IATA)	: 1888

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14.2. UN proper shipping name	
Proper Shipping Name (DOT) Proper Shipping Name (TDG) Proper Shipping Name (IMDG) Proper Shipping Name (IATA)	: Chloroform : CHLOROFORM : CHLOROFORM : Chloroform
14.3. Transport hazard class(es)	
<b>DOT</b> Transport hazard class(es) (DOT) Hazard labels (DOT)	: 6.1 : 6.1
<b>TDG</b> Transport hazard class(es) (TDG) Hazard labels (TDG)	: 6.1 : 6.1
IMDG Transport hazard class(es) (IMDG) Hazard labels (IMDG)	: 6.1 : 6.1
IATA Transport hazard class(es) (IATA) Hazard labels (IATA)	: 6.1 : 6.1
14.4. Packing group	
Packing group (DOT) Packing group (TDG) Packing group (IMDG) Packing group (IATA)	: III : III : III : III
14.5. Environmental hazards	
Other information	: No supplementary information available.
14.6. Special precautions for user	
DOT UN-No.(DOT)	: UN1888

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DOT Special Provisions (49 CFR 172.102)	<ul> <li>IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).</li> <li>N36 - Aluminum or aluminum alloy construction materials are permitted only for halogenated hydrocarbons that will not react with aluminum.</li> <li>T7 - 4 178.274(d)(2) Normal</li></ul>
	F) and 50 C (122 F), respectively.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 153
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 203
DOT Packaging Bulk (49 CFR 173.xxx)	: 241
DOT Quantity Limitations Passenger aircraft/rail (49	: 60 L
CFR 173.27)	
DOT Quantity Limitations Cargo aircraft only (49	: 220 L
CFR 175.75)	
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a
	passenger vessel.
DOT Vessel Stowage Other	: 40 - Stow "clear of living quarters"
Do 1 vessel blowage other	
TDG	
UN-No. (TDG)	: UN1888
Explosive Limit and Limited Quantity Index	: 5L
Excepted quantities (TDG)	: E1
Passenger Carrying Road Vehicle or Passenger	: 60 L
Carrying Railway Vehicle Index	. 00 L
Emergency Response Guide (ERG) Number	: 151
Emergency Response Guide (ERG) Number	. 101
IMDG	
Limited quantities (IMDG)	: 5L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P001, LP01
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T7
Tank special provisions (IMDG)	: TP2
EmS-No. (Fire)	: F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage)	: S-A - SPILLAGE SCHEDULE Alfa - TOXIC SUBSTANCES
Stowage category (IMDG)	: A
Stowage and handling (IMDG)	: SW2
Segregation (IMDG)	: SGG10
Flash point (IMDG)	• •
Properties and observations (IMDG)	. Colourless, volatile liquid.Boiling point: 61°C. Non-flammable. When involved in a fire, evolves
	extremely toxic fumes (phosgene). Toxic if swallowed, by skin contact or by
	inhalation. Anaesthetic.
MFAG-No	: 151
	. 101
ΙΑΤΑ	
PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y680
PCA limited quantity max net quantity (IATA)	: 2L
PCA named quality max net quality (IATA) PCA packing instructions (IATA)	: 680
PCA packing instructions (IATA) PCA max net quantity (IATA)	: 60L

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CAO packing instructions (IATA)	: 680
CAO max net quantity (IATA)	: 220L
ERG code (IATA)	: 6A

## 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

#### Not applicable

## **SECTION 15: Regulatory information**

### **15.1. US Federal regulations**

## CHLOROFORM-D (D, 99.8%) +1% V/V TMS (67-66-3)

Subject to reporting requirements of United States SARA Section 313 Listed on EPA Hazardous Air Pollutant (HAPS)

Listed on EPA Hazardous Air Pollutant (HAPS)				
CERCLA RQ	10 lb			
RQ (Reportable quantity, section 304 of EPA's List of Lists)	10 lb			
SARA Section 302 Threshold Planning Quantity (TPQ)	10000 lb			
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard			
Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):				
Name	CAS-No.	Listing	Commercial status	Flags

			status	
CHLOROFORM-D (D, 99.8%)	67-66-3	Present	Active	
TETRAMETHYLSILANE 99.9%	75-76-3	Not present	-	

CHLOROFORM-D (D, 99.8%) (67-66-3)		
Subject to reporting requirements of United States SARA Section 313 Listed on EPA Hazardous Air Pollutant (HAPS)		
CERCLA RQ	10 lb	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	10 ІЬ	
SARA Section 302 Threshold Planning Quantity (TPQ)	10000 lb	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard	

TETRAMETHYLSILANE 99.9% (75-76-3)		
Not subject to reporting requirements of the United States SARA Section 313		
SARA Section 311/312 Hazard Classes	Fire hazard	

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#### **15.2. International regulations**

#### CANADA

CHLOROFORM-D (D, 99.8%) +1% V/V TMS (67-66-3)

Listed on the Canadian DSL (Domestic Substances List)

### CHLOROFORM-D (D, 99.8%) (67-66-3)

Listed on the Canadian DSL (Domestic Substances List)

### **TETRAMETHYLSILANE 99.9% (75-76-3)**

Listed on the Canadian DSL (Domestic Substances List)

#### **EU-Regulations**

No additional information available

### National regulations

CHLOROFORM-D (D, 99.8%) +1% V/V TMS (67-66-3)

Listed on IARC (International Agency for Research on Cancer) Listed as carcinogen on NTP (National Toxicology Program) Listed on INSQ (Mexican National Inventory of Chemical Substances)

### CHLOROFORM-D (D, 99.8%) (67-66-3)

Listed on IARC (International Agency for Research on Cancer) Listed as carcinogen on NTP (National Toxicology Program) Listed on INSQ (Mexican National Inventory of Chemical Substances)

### TETRAMETHYLSILANE 99.9% (75-76-3)

CAUTION: This material is supplied for research and development purposes subject to the R&D exemption under TSCA, 40 CFR 720.36, and must meet the requirements of the exemption, including supervision by a "technically qualified individual" as defined by 40 CFR 720.3(ee). The use of this material for "commercial purposes" as defined by 40 CFR 720.3(r) is not permitted in the United States. Listed on INSQ (Mexican National Inventory of Chemical Substances) Listed on TECI (Thailand Existing Chemicals Inventory)

### 15.3. US State regulations

CHLOROFORM-D (D, 99.8%) +1% V/V TMS (67-66-3)		
U.S California - Proposition 65 - Carcinogens List	Yes	
U.S California - Proposition 65 - Developmental Toxicity	Yes	
U.S California - Proposition 65 - Reproductive Toxicity - Female	Yes	
U.S California - Proposition 65 - Reproductive Toxicity - Male	Yes	
No significant risk level (NSRL)	20 μg/day (oral) ; 40 μg/day (inhalation)	
State or local regulations	U.S Massachusetts - Right To Know List U.S New Jersey - Right to Know Hazardous Substance List U.S Pennsylvania - RTK (Right to Know) List	

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CHLOROFORM-D (D, 99.8%) (67-66-3)					
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	<b>.</b>	Maximum allowable dose level (MADL)
Yes	Yes	Yes	Yes	20 μg/day (oral) ; 40 μg/day (inhalation)	

Component	State or local regulations
CHLOROFORM-D (D, 99.8%)(67-66-3)	U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List
TETRAMETHYLSILANE 99.9%(75-76-3)	U.S New Jersey - Right to Know Hazardous Substance List

### **SECTION 16: Other information**

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Revision date : 05/25/2023

Other information

: This product is not radioactive. The data given for this product are those of the corresponding unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.

Full text of H-phrases	
H224	Extremely flammable liquid and vapor
H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H331	Toxic if inhaled
H336	May cause drowsiness or dizziness
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
H372	Causes damage to organs through prolonged or repeated exposure
H402	Harmful to aquatic life

NFPA fire hazard	<ul> <li>incapacitation or residual injury.</li> <li>0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.</li> </ul>
NFPA reactivity	: 0 - Material that in themselves are normally stable, even under fire conditions.
Hazard Rating Health Flammability	<ul> <li>2 Moderate Hazard - Temporary or minor injury may occur</li> <li>0 Minimal Hazard - Materials that will not burn</li> </ul>

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Physical

: 1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.