



# 3% CHLOROFORM + 0.2% TMS IN ACETONE-D6

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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Version: 2.2

DLM-5000

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

### 1.1. Product identifier

Product form : Mixtures  
Product name : 3% CHLOROFORM + 0.2% TMS IN ACETONE-D6  
Product code : DLM-5000

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

#### 1.2.1. Relevant identified uses

Main use category : Professional use  
Industrial/Professional use spec : For professional use only

#### 1.2.2. Uses advised against

No additional information available

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

Cambridge Isotope Laboratories, Inc.  
50 Frontage Road  
Andover, MA 01810  
USA

USA: 1-800-322-1174 Int: 1-978-749-8000  
[cilsales@isotope.com](mailto:cilsales@isotope.com) [www.isotope.com](http://www.isotope.com)

### Emergency telephone number

Emergency numbers:

Chemtrec: 1-800-424-9300 (24 hours)  
International: 1-703-741-5970 (24 hours)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 2 H225  
Eye Irrit. 2 H319  
Carc. 2 H351  
STOT SE 2 H371  
STOT RE 2 H373

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

#### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Carc.Cat.3; R40  
Muta.Cat.3; R68  
F; R11  
Xi; R36  
R48

Full text of R-phrases: see section 16

#### GHS-US classification

Flam. Liq. 2 H225  
Eye Irrit. 2A H319  
Carc. 2 H351  
STOT SE 2 H371  
STOT RE 2 H373

Full text of H statements : see section 16

#### Adverse physicochemical, human health and environmental effects

Liver, Kidney, Skin. Highly flammable liquid and vapor. May cause drowsiness or dizziness. Causes serious eye irritation.

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### 2.2. Label elements

#### Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



Signal word (CLP) :

Danger

Hazardous ingredients :

ACETONE-D6 (D, 99.9%) ; CHLOROFORM UNLABELED

Hazard statements (CLP) :

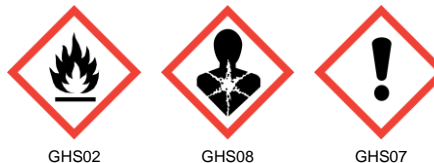
H225 - Highly flammable liquid and vapor  
H319 - Causes serious eye irritation  
H351 - Suspected of causing cancer (in contact with skin, if inhaled, if swallowed)  
H371 - May cause damage to organs (kidneys, liver) (in contact with skin, if inhaled, if swallowed)  
H373 - May cause damage to organs (kidneys, liver) through prolonged or repeated exposure (in contact with skin, if inhaled, if swallowed)

Precautionary statements (CLP) :

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233 - Keep container tightly closed.  
P240 - Ground/bond container and receiving equipment.  
P241 - Use explosion-proof electrical, lighting, ventilating equipment  
P260 - Do not breathe fume, mist, spray, vapors.  
P264 - Wash both hands thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P280 - Wear eye protection, face protection, protective clothing, protective gloves.

#### GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H225 - Highly flammable liquid and vapor  
H319 - Causes serious eye irritation  
H351 - Suspected of causing cancer  
H371 - May cause damage to organs (kidneys, liver) (Dermal, Inhalation, oral)  
H373 - May cause damage to organs (kidneys, liver) through prolonged or repeated exposure (Dermal, Inhalation, oral)

Precautionary statements (GHS-US) :

P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking.  
P233 - Keep container tightly closed.  
P240 - Ground/Bond container and receiving equipment  
P241 - Use explosion-proof electrical, lighting, ventilating equipment  
P242 - Use only non-sparking tools.  
P243 - Take precautionary measures against static discharge.  
P260 - Do not breathe fume, mist, spray, vapors.  
P264 - Wash Both hands thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P280 - Wear eye protection, face protection, protective clothing, protective gloves.  
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
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.  
P314 - Get medical advice/attention if you feel unwell.  
P337+P313 - If eye irritation persists: Get medical advice/attention.  
P370+P378 - In case of fire: Use Alcohol resistant foam, Carbon dioxide, Dry chemical, Water spray to extinguish.  
P403+P235 - Store in a well-ventilated place. Keep cool.  
P405 - Store locked up.  
P501 - Dispose of contents/container to Comply with applicable regulations

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### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Directive 67/548/EEC
ACETONE-D6 (D, 99.9%)	(CAS-No.) 666-52-4 (EC-No.) 211-563-9 (EC Index-No.) 606-001-00-8 (Unlabeled) (REACH-no) 01-2119471330-49	94.82	F; R11 Xi; R36 R67
CHLOROFORM UNLABELED	(CAS-No.) 67-66-3 (EC-No.) 212-742-4 (EC Index-No.) 602-006-00-4	5.03	Carc.Cat.3; R40 T; R23 Xi; R36/38 Xn; R22 Repr.Cat.3; R62 Repr.Cat.3; R63 T; R48/23 R67
TETRAMETHYLSILANE 99.9%	(CAS-No.) 75-76-3 (EC-No.) 200-899-1	0.15	F+; R12

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ACETONE-D6 (D, 99.9%)	(CAS-No.) 666-52-4 (EC-No.) 211-563-9 (EC Index-No.) 606-001-00-8 (Unlabeled) (REACH-no) 01-2119471330-49	94.82	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
CHLOROFORM UNLABELED	(CAS-No.) 67-66-3 (EC-No.) 212-742-4 (EC Index-No.) 602-006-00-4	5.03	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Inhalation), H331 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Carc. 2, H351 Repr. 2, H361 STOT SE 3, H336 STOT RE 1, H372
TETRAMETHYLSILANE 99.9%	(CAS-No.) 75-76-3 (EC-No.) 200-899-1	0.15	Flam. Liq. 1, H224

Name	Product identifier	%	GHS-US classification
ACETONE-D6 (D, 99.9%)	(CAS-No.) 666-52-4	94.82	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
CHLOROFORM UNLABELED	(CAS-No.) 67-66-3	5.03	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	0.15	Flam. Liq. 1, H224

Full text of R- and H- phrases: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: Call a poison center/doctor/physician if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Call a poison center/doctor/physician if you feel unwell.

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

Symptoms/effects	: Suspected of causing cancer (in contact with skin, if inhaled, if swallowed). May cause damage to organs (kidneys, liver) (in contact with skin, if inhaled, if swallowed). May cause damage to organs (kidneys, liver) through prolonged or repeated exposure (in contact with skin, if inhaled, if swallowed).
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Symptoms/effects after inhalation	: May be harmful if inhaled.
Symptoms/effects after skin contact	: May be harmful in contact with skin.
Symptoms/effects after eye contact	: Causes serious eye irritation.
Symptoms/effects after ingestion	: May be harmful if swallowed.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

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

Fire hazard : Highly flammable liquid and vapor.  
Reactivity : Highly flammable liquid and vapor.

### 5.3. Advice for firefighters

Firefighting instructions : Do not enter fire area without proper protective equipment, including respiratory protection.  
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.  
Other information : Use water spray to cool unopened containers.

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid breathing dust, fume, gas, mist, spray, vapors. Avoid contact with skin and eyes.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Do not allow to enter drains or water courses. Avoid release to the environment.

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

For containment : Clean up any spills as soon as possible, using an absorbent material to collect it. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. For large spills, confine the spill in a dike and charge it with wet sand or earth for subsequent safe disposal.  
Methods for cleaning up : This material and its container must be disposed of in a safe way, and as per local legislation.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing dust, fume, gas, mist, spray, vapors. Avoid contact with skin and eyes.  
Hygiene measures : Wash hands before eating and wash before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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

Technical measures : Ground/bond container and receiving equipment. Store locked up. Store in tightly closed, leak-proof containers. Keep dry. Store in a well-ventilated place. Keep container tightly closed.  
Storage conditions : Store at room temperature away from light and moisture.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

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<b>ACETONE-D6 (D, 99.9%) (666-52-4)</b>		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	500.0000000 ppm Remarks: Central Nervous System impairment. Hematologic effects. Upper Respiratory Tract irritation. Eye irritation. Adopted values or notations enclosed are those for which changes are proposed in the NIC. See Notice of Intended Changes (NIC). Substances for which there is a Biological Exposure Index or Indices (see BEI section). Not classifiable as a human carcinogen. Basis: USA. ACGIH Threshold Limit Values (TLV)
Italy - Portugal - USA ACGIH	ACGIH STEL (ppm)	750 ppm Remarks: Central Nervous System impairment. Hematologic effects. Upper Respiratory Tract irritation. Eye irritation. Adopted values or notations enclosed are those for which changes are proposed in the NIC. See Notice of Intended Changes (NIC). Substances for which there is a Biological Exposure Index or Indices (see BEI section). Not classifiable as a human carcinogen. Basis: USA. ACGIH Threshold Limit Values (TLV)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Component: Acetone CAS-No.: 67-64-1 Value: TWA Control parameter: 250 ppm Remarks: Central Nervous System impairment. Upper Respiratory Tract irritation. Eye irritation. 2015 Adoption. Substances for which there is a Biological Exposure Index or Indices (see BEI section). Not classifiable as a human carcinogen. Basis: USA. ACGIH Threshold Limit Values (TLV); Component: Acetone CAS-No.: 67-64-1 Parameters: Acetone Value: 50.0000 mg/l Biological specimen: Urine Remarks: End of shift (As soon as possible after exposure ceases) Basis: ACGIH - Biological Exposure Indices (BEI); Component: Acetone CAS-No.: 67-64-1 Parameters: Acetone Value: 25 mg/l Biological specimen: Urine Remarks: End of shift (As soon as possible after exposure ceases) Basis: ACGIH - Biological Exposure Indices (BEI)
USA NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	590 mg/m <sup>3</sup> Basis: USA. NIOSH Recommended Exposure Limits
USA NIOSH	NIOSH REL (TWA) (ppm)	250 ppm Basis: USA. NIOSH Recommended Exposure Limits
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	2400 mg/m <sup>3</sup> The value in mg/m <sup>3</sup> is approximate. Basis: USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
USA OSHA	OSHA PEL (TWA) (ppm)	1000 ppm Basis: USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
USA OSHA	OSHA PEL (STEL) (mg/m <sup>3</sup> )	1780 mg/m <sup>3</sup> Basis: California permissible exposure limits for chemical contaminants. (Title 8, Article 107)
USA OSHA	OSHA PEL (STEL) (ppm)	750 ppm Basis: California permissible exposure limits for chemical contaminants. (Title 8, Article 107)
USA OSHA	OSHA PEL (Ceiling) (mg/m <sup>3</sup> )	1200 mg/m <sup>3</sup> Basis: California permissible exposure limits for chemical contaminants. (Title 8, Article 107)
USA OSHA	OSHA PEL (Ceiling) (ppm)	3000 ppm Basis: California permissible exposure limits for chemical contaminants. (Title 8, Article 107)
USA OSHA	Remark (OSHA)	Component: Acetone CAS-No.: 67-64-1 Parameters: Acetone Value: 500 ppm Basis: California permissible exposure limits for chemical contaminants. (Title 8, Article 107)
<b>CHLOROFORM UNLABELED (67-66-3)</b>		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	10.00000000 ppm Basis: USA. ACGIH Threshold Limit Values (TLV)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Central Nervous system impairment. Liver damage. Embryo/fetal damage. Confirmed animal carcinogen with unknown relevance to humans.
USA NIOSH	NIOSH REL (STEL) (mg/m <sup>3</sup> )	9.78 mg/m <sup>3</sup> Basis: USA. NIOSH Recommended Exposure Limits
USA NIOSH	NIOSH REL (STEL) (ppm)	2 ppm Basis: USA. NIOSH Recommended Exposure Limits

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CHLOROFORM UNLABELED (67-66-3)		
USA NIOSH	Remark (NIOSH)	Potential Occupational Carcinogen. See Appendix A.
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	9.78 mg/m <sup>3</sup> Basis: USA. Occupational Exposure Limits (OSHA) Table Z-1 Limits for Air Contaminants - 1910.1000
USA OSHA	OSHA PEL (TWA) (ppm)	2 ppm Basis: USA. Occupational Exposure Limits (OSHA) Table Z-1 Limits for Air Contaminants - 1910.1000
USA OSHA	OSHA PEL (Ceiling) (mg/m <sup>3</sup> )	240 mg/m <sup>3</sup> Basis: USA. Occupational Exposure Limits (OSHA) Table Z-1 Limits for Air Contaminants.
USA OSHA	OSHA PEL (Ceiling) (ppm)	50 ppm Basis: USA. Occupational Exposure Limits (OSHA) Table Z-1 Limits for Air Contaminants.
USA OSHA	Remark (OSHA)	The value in mg/m <sup>3</sup> is approximate. Ceiling limit is to be determined from breathing-zone air samples. Value: PEL Control Parameters: 2 ppm / 9.78 mg/m <sup>3</sup> Basis: California permissible exposure limits for chemical contaminants (Title 8, Article 107)

3% CHLOROFORM + 0.2% TMS IN ACETONE-D6	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	2420 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	186 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1210 mg/m <sup>3</sup>
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	62 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	200 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	62 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	10.6 mg/l
PNEC aqua (marine water)	1.06 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	30.4 mg/kg dwt
PNEC sediment (marine water)	3.04 mg/kg dwt
PNEC (Soil)	
PNEC soil	33.3 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	100 mg/l

### 8.2. Exposure controls

No additional information available

## SECTION 9: Physical and chemical properties

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

Physical state	: Liquid
Appearance	: Liquid, Clear
Color	: Colorless
Odor	: No data available
Odor threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Highly flammable liquid and vapor
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available

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Solubility	: No data available
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosion limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Highly flammable liquid and vapor.

### 10.2. Chemical stability

Five years after receipt if stored as stated in "Storage" section. Re-QC after 5 years.

### 10.3. Possibility of hazardous reactions

May form flammable/explosive vapor-air mixture.

### 10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

### 10.5. Incompatible materials

Bases. Oxidizing agent. Reducing agents. Reacts violently with. Phosphorus oxychloride.

### 10.6. Hazardous decomposition products

Carbon oxides (CO, CO<sub>2</sub>).

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

3% CHLOROFORM + 0.2% TMS IN ACETONE-D6	
ATE CLP (oral)	5800.000 mg/kg body weight
ATE CLP (vapors)	50.100 mg/l/4h
ATE CLP (dust, mist)	50.100 mg/l/4h

ACETONE-D6 (D, 99.9%) (666-52-4)	
LD50 oral rat	5800 mg/kg Remarks: Behavioral: Altered sleep time (including change in righting reflex). Behavioral: Tremor. Behavioral: Headache. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
LD50 dermal	7426 mg/kg Guinea pig
LC50 inhalation rat (mg/l)	50100 mg/m <sup>3</sup> - 8 h Remarks: Drowsiness, Dizziness, Unconsciousness
ATE CLP (oral)	5800.000 mg/kg body weight
ATE CLP (vapors)	50.100 mg/l/4h
ATE CLP (dust, mist)	50.100 mg/l/4h

CHLOROFORM UNLABELED (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 CLP (oral)	908.000 mg/kg body weight
ATE CLP (gases)	700.000 ppmV/4h
ATE CLP (vapors)	3.000 mg/l/4h
ATE CLP (dust, mist)	0.500 mg/l/4h

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Suspected of causing cancer (in contact with skin, if inhaled, if swallowed).

CHLOROFORM UNLABELED (67-66-3)	
Carcinogenicity, oral, rat	Tumorigenic: Carcinogenic by RTECS criteria. Leukemia.

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Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: May cause damage to organs (kidneys, liver) (in contact with skin, if inhaled, if swallowed).
Specific target organ toxicity – repeated exposure	: May cause damage to organs (kidneys, liver) through prolonged or repeated exposure (in contact with skin, if inhaled, if swallowed).
Aspiration hazard	: Not classified
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.
Symptoms/effects after skin contact	: May be harmful in contact with skin.
Symptoms/effects after eye contact	: Causes serious eye irritation.
Symptoms/effects after ingestion	: May be harmful if swallowed.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

<b>ACETONE-D6 (D, 99.9%) (666-52-4)</b>	
LC50 fish 1	5540 mg/l Oncorhynchus mykiss (rainbow trout) - 96 h
EC50 Daphnia 1	8800 mg/l Daphnia magna (Water flea) - 48 h
ErC50 (algae)	Remarks: No data available
<b>CHLOROFORM UNLABELED (67-66-3)</b>	
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 Daphnia 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

### 12.2. Persistence and degradability

<b>ACETONE-D6 (D, 99.9%) (666-52-4)</b>	
Biodegradation	91 % - Readily biodegradable. (OECD Test Guideline 301B)

### 12.3. Bioaccumulative potential

<b>ACETONE-D6 (D, 99.9%) (666-52-4)</b>	
Log Pow	-0.24
Bioaccumulative potential	There is no bioaccumulation.
<b>CHLOROFORM UNLABELED (67-66-3)</b>	
BCF fish 1	-0.11 mg/l Lepomis macrochirus (Bluegill) - 14 d
Bioconcentration factor (BCF REACH)	6
Log Pow	1.97

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Regional legislation (waste) : Waste materials should be disposed of under conditions which meet Federal, State, and local environmental control regulations.



# 3% CHLOROFORM + 0.2% TMS IN ACETONE-D6 DLM-5000

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- Product/Packaging disposal recommendations : Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
- Ecology - waste materials : Dispose of as unused product.

### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

#### 14.1. UN number

- UN-No.(DOT) : 1090  
DOT NA no. UN1090

#### 14.2. UN proper shipping name

- Proper Shipping Name (DOT) : Acetone  
Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120  
Hazard labels (DOT) : 3 - Flammable liquid



- Packing group (DOT) : II - Medium Danger  
DOT Special Provisions (49 CFR 172.102) : IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). 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.  
T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)  
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling =  $97 / 1 + a (tr - tf)$  Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
- DOT Packaging Exceptions (49 CFR 173.xxx) : 150  
DOT Packaging Non Bulk (49 CFR 173.xxx) : 202  
DOT Packaging Bulk (49 CFR 173.xxx) : 242

#### 14.3. Additional information

- Other information : No supplementary information available.

#### Overland transport

- Packing group (ADR) : II  
Class (ADR) : 3 - Flammable liquid  
Hazard identification number (Kemler No.) : 33  
Classification code (ADR) : F1  
Hazard labels (ADR) : 3 - Flammable liquids



- Orange plates : An orange rectangular label with a black border. It is divided into two horizontal sections. The top section contains the number "33" and the bottom section contains the number "1090".

- Tunnel restriction code (ADR) : D/E  
Limited quantities (ADR) : 1I  
EAC : •2YE  
Excepted quantities (ADR) : E2

#### Transport by sea

- DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
- MFAG-No : 127

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### Air transport

DOT Quantity Limitations Passenger aircraft/rail : 5 L  
(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 60 L  
CFR 175.75)

Civil Aeronautics Law : Flammable liquids

### 14.4. Environmental hazards

Other information : No supplementary information available.

### 14.5. Special precautions for user

### 14.6. 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

#### 3% CHLOROFORM + 0.2% TMS IN ACETONE-D6

SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
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SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard
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SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.
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#### TETRAMETHYLSILANE 99.9% (75-76-3)

SARA Section 302 Threshold Planning Quantity (TPQ)	SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302
--	--

SARA Section 311/312 Hazard Classes	Fire hazard
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SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
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#### ACETONE-D6 (D, 99.9%) (666-52-4)

SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
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SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard
-------------------------------------	---

SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.
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#### CHLOROFORM UNLABELED (67-66-3)

Listed on the United States SARA Section 302  
Subject to reporting requirements of United States SARA Section 313

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
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### 15.2. International regulations

#### CANADA

#### 3% CHLOROFORM + 0.2% TMS IN ACETONE-D6

Listed on the Canadian DSL (Domestic Substances List)

#### CHLOROFORM UNLABELED (67-66-3)

Listed on the Canadian DSL (Domestic Substances List)

#### 15.2.1. National regulations

No additional information available

### 15.3. US State regulations

#### 3% CHLOROFORM + 0.2% TMS IN ACETONE-D6()

U.S. - California - Proposition 65 - Carcinogens List	No
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U.S. - California - Proposition 65 - Developmental Toxicity	No
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U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
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3% CHLOROFORM + 0.2% TMS IN ACETONE-D6()	
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No
State or local regulations	U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List

TETRAMETHYLSILANE 99.9% (75-76-3)				
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	No significant risk level (NSRL)
No	No	No	No	

ACETONE-D6 (D, 99.9%) (666-52-4)				
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	No significant risk level (NSRL)
No	No	No	No	

CHLOROFORM UNLABELED (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	No significant risk level (NSRL)
Yes	Yes	No	No	

TETRAMETHYLSILANE 99.9% (75-76-3)				
State or local regulations				
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List				

ACETONE-D6 (D, 99.9%) (666-52-4)				
State or local regulations				
U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List				

CHLOROFORM UNLABELED (67-66-3)				
State or local regulations				
U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List				

## SECTION 16: Other information

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 R-, H- and EUH-phrases:

Acute Tox. 3 (Inhalation)	Acute toxicity (inhalation) Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Carc. 2	Carcinogenicity Category 2
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Flam. Liq. 1	Flammable liquids Category 1
Flam. Liq. 2	Flammable liquids Category 2
Repr. 2	Reproductive toxicity Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 2	Specific target organ toxicity (single exposure) Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H224	Extremely flammable liquid and vapour

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H225	Highly 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
H371	May cause damage to organs
H372	Causes damage to organs through prolonged or repeated exposure
H373	May cause damage to organs through prolonged or repeated exposure
R11	Highly flammable
R12	Extremely flammable
R22	Harmful if swallowed
R23	Toxic by inhalation
R36	Irritating to eyes
R36/38	Irritating to eyes and skin
R40	Limited evidence of a carcinogenic effect
R48	Danger of serious damage to health by prolonged exposure
R48/23	Toxic: danger of serious damage to health by prolonged exposure through inhalation
R62	Possible risk of impaired fertility
R63	Possible risk of harm to the unborn child
R67	Vapors may cause drowsiness and dizziness
R68	Possible risk of irreversible effects
F	Highly flammable
F+	Extremely flammable
T	Toxic
Xi	Irritant
Xn	Harmful

NFPA health hazard

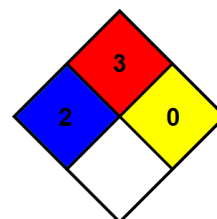
: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard

: 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.

NFPA reactivity

: 0 - Material that in themselves are normally stable, even under fire conditions.



### Hazard Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur

Flammability : 3 Serious Hazard

Physical : 0 Minimal Hazard

CIL Multi-Solvent Mixture SDS

*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*