



1% DCDFE + 10% CCL3F + 6% TMS IN ACETONE-D6 IN A 7" SEALED NMR TUBE/FILL HEIGHT 50MM

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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DLM-7048

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

1.1. Product identifier

Product form : Mixtures
Product name : 1% DCDFE + 10% CCL3F + 6% TMS IN ACETONE-D6 IN A 7" SEALED NMR TUBE/FILL HEIGHT 50MM
Product code : DLM-7048

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 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. 1 H224
Eye Irrit. 2 H319
Skin Sens. 1 H317
STOT SE 3 H336

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

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

F+; R12
Xi; R36
R43
R66
R67

Full text of R-phrases: see section 16

GHS-US classification

Flam. Liq. 1 H224
Eye Irrit. 2A H319
Skin Sens. 1 H317
STOT SE 3 H336

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

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

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2.2. Label elements

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

Hazard pictograms (CLP) :



GHS02

GHS07

Signal word (CLP) :

Danger

Hazardous ingredients :

1,2-DICHLORO-1,1-DIFLUOROETHANE

Hazard statements (CLP) :

H224 - Extremely flammable liquid and vapour
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness

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
P261 - Avoid breathing fume, mist, spray, vapours
P264 - Wash both hands thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area
P272 - Contaminated work clothing should not be allowed out of the workplace

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS02

GHS07

Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H224 - Extremely flammable liquid and vapour
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness

Precautionary statements (GHS-US) :

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
P261 - Avoid breathing fume, mist, spray, vapours
P264 - Wash Both hands thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area
P272 - Contaminated work clothing must not be allowed out of the workplace
P280 - Wear eye protection, face protection, protective clothing, protective gloves
P302+P352 - If on skin: Wash with plenty of water
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
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
P312 - Call a doctor if you feel unwell
P321 - Specific treatment (see Hazard pictograms (CLP) on this label)
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
P337+P313 - If eye irritation persists: Get medical advice/attention
P363 - Wash contaminated clothing before reuse
P370+P378 - In case of fire: Use Alcohol resistant foam, Carbon dioxide, Dry chemical, Water spray to extinguish
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
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	82.95	F; R11 Xi; R36 R66 R67
TRICHLOROFUOROMETHANE	(CAS No) 75-69-4 (EC No) 200-892-3	10.019	Not classified
TETRAMETHYLSILANE 99.9%	(CAS No) 75-76-3 (EC No) 200-899-1	6.018	F+; R12
1,2-DICHLORO-1,1-DIFLUOROETHANE	(CAS No) 1649-08-7	1.013	Xi; R36 R43

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	82.95	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
TRICHLOROFUOROMETHANE	(CAS No) 75-69-4 (EC No) 200-892-3	10.019	Acute Tox. 4 (Dermal), H312
TETRAMETHYLSILANE 99.9%	(CAS No) 75-76-3 (EC No) 200-899-1	6.018	Flam. Liq. 1, H224
1,2-DICHLORO-1,1-DIFLUOROETHANE	(CAS No) 1649-08-7	1.013	Eye Irrit. 2, H319 Skin Sens. 1, H317

Name	Product identifier	%	GHS-US classification
ACETONE-D6 (D, 99.9%)	(CAS No) 666-52-4	82.95	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
TRICHLOROFUOROMETHANE	(CAS No) 75-69-4	10.019	Acute Tox. 4 (Dermal), H312
1,2-DICHLORO-1,1-DIFLUOROETHANE	(CAS No) 1649-08-7	1.013	Eye Irrit. 2A, H319 Skin Sens. 1, H317

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

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
First-aid measures after skin contact	: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse.
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 or a doctor if you feel unwell.

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

Symptoms/injuries	: May cause drowsiness or dizziness.
Symptoms/injuries after inhalation	: May cause an allergic skin reaction. May cause drowsiness or dizziness.
Symptoms/injuries after skin contact	: May be harmful in contact with skin. May cause skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye irritation.
Symptoms/injuries after ingestion	: May be harmful if swallowed.

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

Treat symptomatically.

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SECTION 5: Fire-fighting 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 : Extremely flammable liquid and vapour.
Explosion hazard : May form flammable/explosive vapour-air mixture.
Reactivity : Highly flammable liquid and vapour.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid breathing mist, spray. 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

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.
Precautions for safe handling : No open flames. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Use only outdoors or in a well-ventilated area.
Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.
Storage conditions : Store at room temperature away from light and moisture.
Incompatible materials : Heat sources.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

1% DCDFE + 10% CCL3F + 6% TMS IN ACETONE-D6 IN A 7" SEALED NMR TUBE/FILL HEIGHT 50MM		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	500.0000000 ppm (Acetone; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
Italy - Portugal - USA ACGIH	ACGIH STEL (ppm)	750 ppm (Acetone; USA; Short time value; TLV - Adopted Value)
ACETONE-D6 (D, 99.9%) (666-52-4)		
EU	IOELV TWA (mg/m ³)	1210 mg/m ³ (Acetone; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)

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ACETONE-D6 (D, 99.9%) (666-52-4)		
EU	IOELV TWA (ppm)	500 ppm (Acetone; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
Belgium	Limit value (mg/m ³)	1210 mg/m ³ (Acétone; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Limit value (ppm)	500 ppm (Acétone; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Short time value (mg/m ³)	2420 mg/m ³ (Acétone; Belgium; Short time value)
Belgium	Short time value (ppm)	1000 ppm (Acétone; Belgium; Short time value)
France	VLE (mg/m ³)	2420 mg/m ³ (Acétone; France; Short time value; VRC: Valeur réglementaire contraignante)
France	VLE (ppm)	1000 ppm (Acétone; France; Short time value; VRC: Valeur réglementaire contraignante)
France	VME (mg/m ³)	1210 mg/m ³ (Acétone; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante)
France	VME (ppm)	500 ppm (Acétone; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante)
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	500.00000000 ppm (Acetone; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
Italy - Portugal - USA ACGIH	ACGIH STEL (ppm)	750 ppm (Acetone; USA; Short time value; TLV - Adopted Value)
USA OSHA	OSHA PEL (TWA) (ppm)	750 ppm The acetone STEL does not apply to the cellulose acetate fiber industry.
USA OSHA	OSHA PEL (STEL) (ppm)	1000 ppm The acetone STEL does not apply to the cellulose acetate fiber industry.
Netherlands	Grenswaarde TGG 8H (mg/m ³)	1210 mg/m ³ (Aceton; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 8H (ppm)	501 ppm (Aceton; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 15MIN (mg/m ³)	2420 mg/m ³ (Aceton; Netherlands; Short time value; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 15MIN (ppm)	1002 ppm (Aceton; Netherlands; Short time value; Public occupational exposure limit value)
United Kingdom	WEL TWA (mg/m ³)	1210 mg/m ³ Acetone; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL TWA (ppm)	500 ppm Acetone; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (mg/m ³)	3620 mg/m ³ Acetone; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (ppm)	1500 ppm Acetone; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
TRICHLOROFLUOROMETHANE (75-69-4)		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	1000.00000000 ppm
Italy - Portugal - USA ACGIH	ACGIH STEL (mg/m ³)	5600 mg/m ³
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Cardiac Sensitization. Not classifiable as a human carcinogen.

8.2. Exposure controls

Personal protective equipment

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



Materials for protective clothing

: Wear suitable protective clothing and gloves.

Hand protection

: Protective gloves.

Eye protection

: Chemical goggles or safety glasses.

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Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Molecular mass	: 64.12 g/mol (Labeled)
Colour	: Colourless.
Odour	: Characteristic odour.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: 55 °C
Flash point	: -17 °C
Auto-ignition temperature	: 464 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Extremely flammable liquid and vapour
Vapour pressure	: 245 hPa (20 °C)
Vapour pressure at 50 °C	: <= 1100 hPa (50 °C)
Relative vapour density at 20 °C	: 2
Relative density	: 0.87
Density	: 872 kg/m ³
Solubility	: Soluble in water. Water: soluble
Log Pow	: -0.24 (Experimental value)
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 0.00034 Pa.s (22 °C)
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: 2.16 - 13.2 vol %

9.2. Other information

VOC content	: 100 %
Other properties	: Gas/vapour heavier than air at 20°C. Highly volatile.

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable liquid and vapour.

10.2. Chemical stability

Stable if stored under recommended conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Sparks. Heat. Direct sunlight. Overheating. Open flame.

10.5. Incompatible materials

Bases, Oxidizing agents, Reducing agents. Reacts violently with phosphorous oxychloride.

10.6. Hazardous decomposition products

May release flammable gases.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

1% DCDFE + 10% CCL3F + 6% TMS IN ACETONE-D6 IN A 7" SEALED NMR TUBE/FILL HEIGHT 50MM	
LD50 oral rat	9750 mg/kg (Rat)
LC50 inhalation rat (mg/l)	50100 mg/m ³ 8 h
ATE CLP (oral)	5800.000 mg/kg bodyweight
ATE CLP (vapours)	50.100 mg/l/4h
ATE CLP (dust,mist)	50.100 mg/l/4h
LD50 Dermal Guinea Pig	7,426 mg/kg

ACETONE-D6 (D, 99.9%) (666-52-4)	
LD50 oral rat	9750 mg/kg (Rat)
LC50 inhalation rat (mg/l)	50100 mg/m ³ 8 h
ATE CLP (oral)	5800.000 mg/kg bodyweight
ATE CLP (vapours)	50.100 mg/l/4h
ATE CLP (dust,mist)	50.100 mg/l/4h
LD50 Dermal Guinea Pig	7,426 mg/kg

TRICHLOROFLUOROMETHANE (75-69-4)	
LD50 oral rat	> 15000 mg/kg
LC50 inhalation rat (ppm)	130000 ppm 0.3 h
ATE CLP (dermal)	1100.000 mg/kg bodyweight

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: May cause an allergic skin reaction. No data available
Germ cell mutagenicity	: Not classified
Carcinogenicity	: This product is or contains a component that is not classifiable as to its carcinogenicity on its IARC, ACGIH, NTP, or EPA classification.
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause drowsiness or dizziness. May cause damage to organs.
STOT-repeated exposure	: Not classified No data available
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/injuries after inhalation	: May cause an allergic skin reaction. May cause drowsiness or dizziness.
Symptoms/injuries after skin contact	: May be harmful in contact with skin. May cause skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye irritation.
Symptoms/injuries after ingestion	: May be harmful if swallowed.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Classification concerning the environment: not applicable.
Ecology - air	: Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009). TA-Luft Klasse 5.2.5.
Ecology - water	: Mild water pollutant (surface water). Not harmful to fishes (LC50(96h) >1000 mg/l). Harmful to invertebrates (Daphnia). Not harmful to algae (EC50 >1000 mg/l). Not harmful to plankton. Inhibition of activated sludge. Nitrification of activated sludge is inhibited.

1% DCDFE + 10% CCL3F + 6% TMS IN ACETONE-D6 IN A 7" SEALED NMR TUBE/FILL HEIGHT 50MM	
LC50 fish 1	5540 mg/l Oncorhynchus mykiss (rainbow trout) - 96 h
EC50 Daphnia 1	13500 mg/l Daphnia magna (Water flea) - 48 h

ACETONE-D6 (D, 99.9%) (666-52-4)	
LC50 fish 1	5540 mg/l Oncorhynchus mykiss (rainbow trout) - 96 h

1% DCDFE + 10% CCL3F + 6% TMS IN ACETONE-D6 IN A 7" SEALED NMR TUBE/FILL HEIGHT 50MM

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ACETONE-D6 (D, 99.9%) (666-52-4)	
EC50 Daphnia 1	13500 mg/l Daphnia magna (Water flea) - 48 h

12.2. Persistence and degradability

1% DCDFE + 10% CCL3F + 6% TMS IN ACETONE-D6 IN A 7" SEALED NMR TUBE/FILL HEIGHT 50MM	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions.
Biochemical oxygen demand (BOD)	1.43 g O ₂ /g substance
Chemical oxygen demand (COD)	1.92 g O ₂ /g substance
ThOD	2.2 g O ₂ /g substance
BOD (% of ThOD)	0.872 (20 days; Literature study)

ACETONE-D6 (D, 99.9%) (666-52-4)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions.
Biochemical oxygen demand (BOD)	1.43 g O ₂ /g substance
Chemical oxygen demand (COD)	1.92 g O ₂ /g substance
ThOD	2.2 g O ₂ /g substance
BOD (% of ThOD)	0.872 (20 days; Literature study)

TETRAMETHYLSILANE 99.9% (75-76-3)	
Persistence and degradability	Not available.

12.3. Bioaccumulative potential

1% DCDFE + 10% CCL3F + 6% TMS IN ACETONE-D6 IN A 7" SEALED NMR TUBE/FILL HEIGHT 50MM	
BCF fish 1	0.69 (BCF)
Log Pow	-0.24 (Experimental value)
Bioaccumulative potential	Bioaccumulation: not applicable.

ACETONE-D6 (D, 99.9%) (666-52-4)	
BCF fish 1	0.69 (BCF)
Log Pow	-0.24 (Experimental value)
Bioaccumulative potential	Bioaccumulation: not applicable.

TETRAMETHYLSILANE 99.9% (75-76-3)	
Bioaccumulative potential	Not available.

TRICHLOROFLUOROMETHANE (75-69-4)	
Log Pow	2.53

12.4. Mobility in soil

1% DCDFE + 10% CCL3F + 6% TMS IN ACETONE-D6 IN A 7" SEALED NMR TUBE/FILL HEIGHT 50MM	
Ecology - soil	Not available.

ACETONE-D6 (D, 99.9%) (666-52-4)	
Ecology - soil	Not available.

TETRAMETHYLSILANE 99.9% (75-76-3)	
Ecology - soil	Not available.

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Other adverse effects : Not 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.
- 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.

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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
Danger labels (ADR) : 3 - Flammable liquids



Orange plates : An orange rectangular label with a black border. It contains the number "33" in the top half and "1090" in the bottom half, both in black text.

Tunnel restriction code (ADR) : D/E
Limited quantities (ADR) : 1l
EAC code : •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

1% DCDFE + 10% CCL3F + 6% TMS IN ACETONE-D6 IN A 7" SEALED NMR TUBE/FILL HEIGHT 50MM

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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

1% DCDFE + 10% CCL3F + 6% TMS IN ACETONE-D6 IN A 7" SEALED NMR TUBE/FILL HEIGHT 50MM

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

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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ACETONE-D6 (D, 99.9%) (666-52-4)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

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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TRICHLOROFLUOROMETHANE (75-69-4)

Subject to reporting requirements of United States SARA Section 313

15.2. International regulations

CANADA

TRICHLOROFLUOROMETHANE (75-69-4)

15.2.1. National regulations

1% DCDFE + 10% CCL3F + 6% TMS IN ACETONE-D6 IN A 7" SEALED NMR TUBE/FILL HEIGHT 50MM

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

ACETONE-D6 (D, 99.9%) (666-52-4)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

TRICHLOROFLUOROMETHANE (75-69-4)

15.3. US State regulations

1% DCDFE + 10% CCL3F + 6% TMS IN ACETONE-D6 IN A 7" SEALED NMR TUBE/FILL HEIGHT 50MM()

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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U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No
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State or local regulations	U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List
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1% DCDFE + 10% CCL3F + 6% TMS IN ACETONE-D6 IN A 7" SEALED NMR TUBE/FILL HEIGHT 50MM

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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	
TRICHLOROFLUOROMETHANE (75-69-4)				
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	
1,2-DICHLORO-1,1-DIFLUOROETHANE (1649-08-7)				
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	

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.

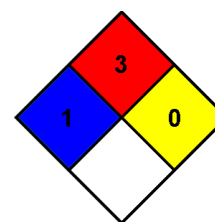
Full text of R-, H- and EUH-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 1	Flammable liquids, Category 1
Flam. Liq. 2	Flammable liquids, Category 2
Skin Sens. 1	Sensitisation — Skin, Category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H224	Extremely flammable liquid and vapour
H225	Highly flammable liquid and vapour
H312	Harmful in contact with skin
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness
R11	Highly flammable
R12	Extremely flammable
R36	Irritating to eyes
R43	May cause sensitisation by skin contact
R66	Repeated exposure may cause skin dryness or cracking
R67	Vapours may cause drowsiness and dizziness
F	Highly flammable
F+	Extremely flammable
Xi	Irritant

NFPA health hazard : 1 - Materials that, under emergency conditions, can cause significant irritation.

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.



HMIS III Rating

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

Flammability : 3 Serious Hazard

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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