



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 11-Jul-2024

Revision Number 1

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

1.1. Product identifier

Product Code(s)	DRE-XA11404000ME
Product Name	1-Chloro-1,1-difluoroethane 100 µg/mL in Methanol
Form	Not applicable
Unique Formula Identifier (UFI)	HTS3-K0RS-D00T-DWGJ
Pure substance/mixture	Mixture

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

Recommended use	Laboratory use
Uses advised against	No information available

1.3. Details of the supplier of the safety data sheet

Supplier

LGC Limited
Queens Road
Teddington
Middlesex TW11 0LY
UNITED KINGDOM
:+44 (0) 20 8943 7000
Fax :+44 (0) 20 8943 2767
eMail : gb@lgcstandards.com

Web : www.lgcstandards.com

For further information, please contact

E-mail address sds-request@lgcgroup.com

1.4. Emergency telephone number

Emergency Telephone	For Hazardous Materials or Dangerous Goods Incident Spill, Leak, Fire Exposure, or Accident Call CHEMTREC: USA & Canada 1-800-424-9300 Rest of the world +1 703-741-3877
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Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 11-Jul-2024

Revision Number 1

DRE-XA11404000ME - 1-Chloro-1,1-difluoroethane 100 µg/mL in Methanol

Emergency Telephone - §45 - (EC)1272/2008	
Europe	112
Austria	No information available
Bulgaria	
Croatia	
Cyprus	
Czech Republic	
Denmark	
France	
Hungary	
Ireland	
Italy	
Lithuania	
Luxembourg	
Netherlands	
Norway	
Portugal	
Romania	
Slovakia	
Slovenia	
Spain	
Sweden	
Switzerland	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute toxicity - Oral	Category 3 - (H301)
Acute toxicity - Dermal	Category 3 - (H311)
Acute toxicity - Inhalation (Vapours)	Category 3 - (H331)
Specific target organ toxicity — single exposure	Category 1 - (H370)
Ozone	Category 1 - (H420)
Flammable liquids	Category 2 - (H225)

2.2. Label elements

200-659-6

Contains Methanol; Chlorodifluoroethane (R142 b)



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Revision date 11-Jul-2024

Revision Number 1

DRE-XA11404000ME - 1-Chloro-1,1-difluoroethane 100 µg/mL in Methanol



Signal word
Danger

Hazard statements

H301 - Toxic if swallowed
H311 - Toxic in contact with skin
H331 - Toxic if inhaled
H370 - Causes damage to organs
H420 - Harms public health and the environment by destroying ozone in the upper atmosphere
H225 - Highly flammable liquid and vapour

Precautionary Statements - EU (§28, 1272/2008)

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P260 - Do not breathe dust/fume/gas/mist/vapours/spray
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor
P502 - Refer to manufacturer or supplier for information on recovery or recycling
P403 + P235 - Store in a well-ventilated place. Keep cool

2.3. Other hazards

No information available.

This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors.

Chemical name	EU - REACH (1907/2006) - Article 59(1) - Candidate List of Substances of Very High Concern (SVHC) for Authorisation	EU - REACH (1907/2006) - Endocrine Disruptor Assessment List of Substances
Methanol	-	-
Chlorodifluoroethane (R142 b)	-	-

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable



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Revision Number 1

DRE-XA11404000ME - 1-Chloro-1,1-difluoroethane 100 µg/mL in Methanol

3.2 Mixtures

Chemical nature Mixture of organic compounds.

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Methanol 67-56-1	80 - 100	-	200-659-6 (603-001-00-X)	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) STOT SE 1 (H370) Flam. Liq. 2 (H225)	STOT SE 1 :: C>=10% STOT SE 2 :: 3%<=C<10%		
Chlorodifluoroethane (R142 b) 75-68-3	0.1 - 1	-	200-891-8	Flam. Gas 1 (H220) Press. Gas (Liq.) (H280) Aquatic Chronic 3 (H412) Ozone (H420)			

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

Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Methanol 67-56-1	6200	15840	No data available	41.6976	No data available

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.



SAFETY DATA SHEET

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Revision date 11-Jul-2024

Revision Number 1

DRE-XA11404000ME - 1-Chloro-1,1-difluoroethane 100 µg/mL in Methanol

Inhalation	Remove to fresh air. IF exposed or concerned: Get medical advice/attention. If breathing has stopped, give artificial respiration. Get medical attention immediately. Immediate medical attention is required. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Get immediate medical attention.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical attention.
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get immediate medical attention.
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Do not breathe vapour or mist.

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

Symptoms	Coughing and/ or wheezing. Difficulty in breathing. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
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4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media	Dry chemical. Carbon dioxide (CO ₂). Water spray. Alcohol resistant foam.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire
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Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 11-Jul-2024

Revision Number 1

DRE-XA11404000ME - 1-Chloro-1,1-difluoroethane 100 µg/mL in Methanol

extinguishing water must be disposed of in accordance with local regulations.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions

Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Do not breathe vapour or mist.

Other information

Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

For emergency responders

Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions

Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

Methods for containment

Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapour suppressing foam may be used to reduce vapours. Dyke far ahead of spill to collect run-off water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up

Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers.

Prevention of secondary hazards

Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections

See section 8 for more information. See section 13 for more information.



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 11-Jul-2024

Revision Number 1

DRE-XA11404000ME - 1-Chloro-1,1-difluoroethane 100 µg/mL in Methanol

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Use personal protection equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Take off contaminated clothing and wash it before reuse. Do not breathe vapour or mist. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product.

General hygiene considerations

Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Do not breathe vapour or mist.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions

Please refer to the manufacturer's certificate for specific storage and transport temperature conditions. Store only in the original receptacle unless other advice is given on the CoA. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labelled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Keep out of the reach of children. Store locked up.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
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Revision date 11-Jul-2024

Revision Number 1

DRE-XA11404000ME - 1-Chloro-1,1-difluoroethane 100 µg/mL in Methanol

Methanol 67-56-1	TWA: 200 ppm TWA: 260 mg/m ³ Sk*	TWA: 200 ppm TWA: 260 mg/m ³ STEL 800 ppm STEL 1040 mg/m ³ Sk*	TWA: 200 ppm TWA: 266 mg/m ³ STEL: 250 ppm STEL: 333 mg/m ³ Sk*	TWA: 200 ppm TWA: 260.0 mg/m ³ Sk*	TWA: 200 ppm TWA: 260 mg/m ³ Sk*
Chlorodifluoroethane (R142 b) 75-68-3	-	TWA: 1000 ppm TWA: 4170 mg/m ³ STEL 2000 ppm STEL 8340 mg/m ³	-	TWA: 3000 mg/m ³	-
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Methanol 67-56-1	TWA: 200 ppm TWA: 260 mg/m ³ Sk*	TWA: 250 mg/m ³ Sk* Ceiling: 1000 mg/m ³	TWA: 200 ppm TWA: 260 mg/m ³ STEL: 400 ppm STEL: 520 mg/m ³ Sk*	TWA: 200 ppm TWA: 250 mg/m ³ STEL: 250 ppm STEL: 350 mg/m ³ Sk*	TWA: 200 ppm TWA: 270 mg/m ³ STEL: 250 ppm STEL: 330 mg/m ³ Sk*
Chlorodifluoroethane (R142 b) 75-68-3	-	-	TWA: 1000 ppm TWA: 4110 mg/m ³	-	-
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Methanol 67-56-1	TWA: 200 ppm TWA: 260 mg/m ³ STEL: 1000 ppm STEL: 1300 mg/m ³ Sk*	TWA: 100 ppm TWA: 130 mg/m ³ Sk*	TWA: 100 ppm TWA: 130 mg/m ³ Peak: 200 ppm Peak: 260 mg/m ³ Sk*	TWA: 200 ppm TWA: 260 mg/m ³ STEL: 250 ppm STEL: 325 mg/m ³ Sk*	TWA: 260 mg/m ³ TWA: 200 ppm Sk*
Chlorodifluoroethane (R142 b) 75-68-3	-	TWA: 1000 ppm TWA: 4200 mg/m ³	TWA: 1000 ppm TWA: 4200 mg/m ³ Peak: 8000 ppm Peak: 33600 mg/m ³	-	TWA: 4170 mg/m ³ STEL: 16680 mg/m ³
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Methanol 67-56-1	TWA: 200 ppm TWA: 260 mg/m ³ STEL: 600 ppm STEL: 780 mg/m ³ Sk*	TWA: 200 ppm TWA: 260 mg/m ³ Sk*	TWA: 200 ppm TWA: 262 mg/m ³ STEL: 250 ppm STEL: 328 mg/m ³ Sk*	TWA: 200 ppm TWA: 260 mg/m ³ Sk*	TWA: 200 ppm TWA: 260 mg/m ³ Sk*
Chlorodifluoroethane (R142 b) 75-68-3	-	-	-	TWA: 3000 mg/m ³ TWA: 2 ppm TWA: 20 mg/m ³	-
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
Methanol 67-56-1	TWA: 200 ppm TWA: 260 mg/m ³ Sk*	TWA: 200 ppm TWA: 260 mg/m ³ Sk*	TWA: 100 ppm TWA: 133 mg/m ³ Sk*	TWA: 100 ppm TWA: 130 mg/m ³ STEL: 150 ppm STEL: 162.5 mg/m ³ Sk*	TWA: 100 mg/m ³ STEL: 300 mg/m ³ Sk* Prohibited - substances or mixtures containing Methanol in weight



SAFETY DATA SHEET

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Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 11-Jul-2024

Revision Number 1

DRE-XA11404000ME - 1-Chloro-1,1-difluoroethane 100 µg/mL in Methanol

					concentration >3%;except fuels used in the model building, powerboating, fuel cells and biofuels
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
Methanol 67-56-1	TWA: 200 ppm TWA: 260 mg/m ³ STEL: 250 ppm Sk*	TWA: 200 ppm TWA: 260 mg/m ³ Sk*	TWA: 200 ppm TWA: 260 mg/m ³ Sk*	TWA: 200 ppm TWA: 260 mg/m ³ STEL: 800 ppm STEL: 1040 mg/m ³ Sk*	TWA: 200 ppm TWA: 266 mg/m ³ Sk*
Chlorodifluoroethane (R142 b) 75-68-3	-	-	-	TWA: 1000 ppm TWA: 4200 mg/m ³ STEL: STEL ppm STEL: STEL mg/m ³	TWA: 1000 ppm TWA: 4200 mg/m ³
Chemical name	Sweden		Switzerland		United Kingdom
Methanol 67-56-1	NGV: 200 ppm NGV: 250 mg/m ³ Vägledande KGV: 250 ppm Vägledande KGV: 350 mg/m ³ Sk*		TWA: 200 ppm TWA: 260 mg/m ³ STEL: 400 ppm STEL: 520 mg/m ³ Sk*		TWA: 200 ppm TWA: 266 mg/m ³ STEL: 250 ppm STEL: 333 mg/m ³ Sk*
Chlorodifluoroethane (R142 b) 75-68-3	-		TWA: 1000 ppm TWA: 4170 mg/m ³		-

Biological occupational exposure limits

Chemical name	European Union	Austria	Bulgaria	Croatia	Czech Republic
Methanol 67-56-1	-	-	-	7.0 mg/g Creatinine - urine (Methanol) - at the end of the work shift	0.47 mmol/L (urine - Methanol end of shift) 15 mg/L (urine - Methanol end of shift)
Chemical name	Denmark	Finland	France	Germany DFG	Germany TRGS
Methanol 67-56-1	-	-	- urine (Methanol) - end of shift	15 mg/L (urine - Methanol end of shift) 15 mg/L (urine - Methanol for long-term exposures: at the end of the shift after	15 mg/L (urine - Methanol end of shift) 15 mg/L (urine - Methanol for long-term exposures: at the end of the shift after



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 11-Jul-2024

Revision Number 1

DRE-XA11404000ME - 1-Chloro-1,1-difluoroethane 100 µg/mL in Methanol

				several shifts) 15 mg/L - BAT (end of exposure or end of shift) urine	several shifts)
Chemical name	Hungary	Ireland	Italy MDLPS	Italy AIDII	
Methanol 67-56-1	30 mg/L (urine - Methanol end of shift) 940 µmol/L (urine - Methanol end of shift)	15 mg/L (urine - Methanol end of shift)	-	15 mg/L - urine (Methanol) - end of shift	
Chemical name	Latvia	Luxembourg	Romania	Slovakia	
Methanol 67-56-1	-	-	6 mg/L - urine (Methanol) - end of shift	30 mg/L (urine - Methanol end of exposure or work shift) 30 mg/L (urine - Methanol after all work shifts)	
Chemical name	Slovenia	Spain	Switzerland	United Kingdom	
Methanol 67-56-1	15 mg/L - urine (Methanol) - at the end of the work shift; for long-term exposure: at the end of the work shift after several consecutive workdays	15 mg/L (urine - Methanol end of shift)	30 mg/L (urine - Methanol end of shift, and after several shifts (for long-term exposures)) 936 µmol/L (urine - Methanol end of shift, and after several shifts (for long-term exposures))	-	

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Personal protective equipment

Eye/face protection

Avoid contact with eyes. Wear safety glasses with side shields (or goggles). Tight sealing safety goggles.

Hand protection

Wear protective butyl rubber gloves. The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374. Wear suitable gloves. Impervious gloves.

Skin and body protection

Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are



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Revision date 11-Jul-2024

Revision Number 1

DRE-XA11404000ME - 1-Chloro-1,1-difluoroethane 100 µg/mL in Methanol

exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations

Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Do not breathe vapour or mist.

Environmental exposure controls

Do not allow into any sewer, on the ground or into any body of water.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Liquid
Colour	colourless
Odour	Alcohol.
Odour threshold	No information available

Property	Values	Remarks • Method
Melting point / freezing point	-98 °C	None known
Initial boiling point and boiling range	64.7 °C	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	50 Vol% - 665 g/m ³	
Lower flammability or explosive limits	6 Vol% - 80 g/m ³	
Flash point	11 °C	None known
Autoignition temperature	464 °C	None known
Decomposition temperature		None known
pH	No data available	None known
pH (as aqueous solution)	No data available	No information available
Kinematic viscosity	No data available	None known
Dynamic viscosity	0.544 - 0.59 mPa s	@ 25°C
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	-0.77	None known
Vapour pressure	128 hPa	@ 20°C
Relative density	0.791	None known
Bulk density	No data available	
Liquid Density	No data available	
Relative vapour density	1.1	None known



SAFETY DATA SHEET

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Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 11-Jul-2024

Revision Number 1

DRE-XA11404000ME - 1-Chloro-1,1-difluoroethane 100 µg/mL in Methanol

Particle characteristics

Particle Size	No information available
Particle Size Distribution	No information available

9.2. Other information

9.2.1. Information with regards to physical hazard classes
Not applicable

9.2.2. Other safety characteristics
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge Yes.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Heat, flames and sparks. Excessive heat.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 11-Jul-2024

Revision Number 1

DRE-XA11404000ME - 1-Chloro-1,1-difluoroethane 100 µg/mL in Methanol

Product Information

Inhalation	Specific test data for the substance or mixture is not available. Toxic by inhalation. (based on components). May cause irritation of respiratory tract. May cause drowsiness or dizziness.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available. Toxic in contact with skin. (based on components).
Ingestion	Specific test data for the substance or mixture is not available. Toxic if swallowed. (based on components).

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	Coughing and/ or wheezing. Difficulty in breathing. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
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Numerical measures of toxicity

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	100.10 mg/kg
ATEmix (dermal)	300.30 mg/kg
ATEmix (inhalation-gas)	99,999.00 ppm
ATEmix (inhalation-dust/mist)	99,999.00 mg/l
ATEmix (inhalation-vapour)	3.00 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Methanol	= 6200 mg/kg (Rat)	= 15840 mg/kg (Rabbit)	= 22500 ppm (Rat) 8 h
Chlorodifluoroethane (R142 b)			= 2050 g/m ³ (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Based on available data, the classification criteria are not met.
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SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 11-Jul-2024

Revision Number 1

DRE-XA11404000ME - 1-Chloro-1,1-difluoroethane 100 µg/mL in Methanol

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitisation No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity No information available.

STOT - single exposure Based on the classification criteria of the Globally Harmonized System as adopted in the country or region with which this safety data sheet complies, this product has been determined to cause systemic target organ toxicity from acute exposure. (STOT SE). Causes damage to organs if swallowed. Causes damage to organs in contact with skin. May cause respiratory irritation. May cause drowsiness or dizziness.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties No information available.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 11-Jul-2024

Revision Number 1

DRE-XA11404000ME - 1-Chloro-1,1-difluoroethane 100 µg/mL in Methanol

Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Methanol	-	LC50: =28200mg/L (96h, Pimephales promelas) LC50: >100mg/L (96h, Pimephales promelas) LC50: 19500 - 20700mg/L (96h, Oncorhynchus mykiss) LC50: 18 - 20mL/L (96h, Oncorhynchus mykiss) LC50: 13500 - 17600mg/L (96h, Lepomis macrochirus)	-	-
Chlorodifluoroethane (R142 b)	-	LC50: =220mg/L (96h, Poecilia reticulata)	-	EC50: =160mg/L (48h, Daphnia magna)

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation There is no data for this product.

Component Information

Chemical name	Partition coefficient
Methanol	-0.77
Chlorodifluoroethane (R142 b)	2.05

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment

Chemical name	PBT and vPvB assessment
Methanol	The substance is not PBT / vPvB
Chlorodifluoroethane (R142 b)	PBT assessment does not apply

12.6. Endocrine disrupting properties



SAFETY DATA SHEET

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Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 11-Jul-2024

Revision Number 1

DRE-XA11404000ME - 1-Chloro-1,1-difluoroethane 100 µg/mL in Methanol

Endocrine disrupting properties No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products

Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging

Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

SECTION 14: Transport information

IATA

14.1 UN number or ID number	UN1230
14.2 UN proper shipping name	Methanol mixture
14.3 Transport hazard class(es)	3
Subsidiary hazard class	6.1
14.4 Packing group	II
Description	UN1230, Methanol mixture, 3 (6.1), II
14.5 Environmental hazards	No
14.6 Special precautions for user	
Special Provisions	A113
ERG Code	3L

IMDG

14.1 UN number or ID number	UN1230
14.2 UN proper shipping name	Methanol mixture
14.3 Transport hazard class(es)	3
Subsidiary hazard class	6.1
14.4 Packing group	II
Description	UN1230, Methanol mixture, 3 (6.1), II, (11°C c.c.)
14.5 Marine pollutant	NP
Environmental hazards	No
14.6 Special precautions for user	
Special Provisions	279
EmS-No.	F-E, S-D No information available



SAFETY DATA SHEET

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Revision date 11-Jul-2024

Revision Number 1

DRE-XA11404000ME - 1-Chloro-1,1-difluoroethane 100 µg/mL in Methanol

14.7 Maritime transport in bulk according to IMO instruments No information available

RID

14.1 UN number or ID number UN1230
14.2 UN proper shipping name Methanol mixture
14.3 Transport hazard class(es) 3
Subsidiary hazard class 6.1
14.4 Packing group II
Description UN1230, Methanol mixture, 3 (6.1), II
14.5 Environmental hazards No
14.6 Special precautions for user
Special Provisions 279
Classification code FT1

ADR

14.1 UN number or ID number UN1230
14.2 UN proper shipping name Methanol mixture
14.3 Transport hazard class(es) 3
Subsidiary hazard class 6.1
14.4 Packing group II
Description UN1230, Methanol mixture, 3 (6.1), II, (D/E)
14.5 Environmental hazards No
14.6 Special precautions for user
Special Provisions 279
Classification code FT1
Tunnel restriction code (D/E)

SECTION 15: Regulatory information

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

National regulations

France

Occupational Illnesses (R-463-3, France)

Chemical name	French RG number	Title
Methanol 67-56-1	RG 84	-

Germany

Water hazard class (WGK) obviously hazardous to water (WGK 2)
TA Luft (German Air Pollution Control Regulation)



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Revision date 11-Jul-2024

Revision Number 1

DRE-XA11404000ME - 1-Chloro-1,1-difluoroethane 100 µg/mL in Methanol

Poland

SDS created according to the following Polish regulation: Act of February 25, 2011 on chemical substances and their mixtures (Journal of Laws of 2018, item 143, as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing the European Chemicals Agency (EC) as amended. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, as amended. Regulation of the Minister of Health of 10 August 2012 on the criteria and method of classifying chemical substances and their mixtures (Journal of Laws of 2012, item 1018). Regulation of the Minister of Health of 20 April 2012 on labeling packaging of hazardous substances and mixtures and some mixtures (Journal of Laws of 2012, item 445). Regulation of the Minister of Family, Labor and Social Policy of 12 June 2018 on the maximum allowable concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286). Announcement of the Minister of Economy, Labor and Social Policy of August 28, 2003 on the publication of the unified text of the Ordinance of the Minister of Labor and Social Policy on general health and safety at work regulations (Journal of Laws of 2003, No. 169, item 1650). Regulation of the Minister of Health of 30 December 2004 on occupational safety and health related to the presence of chemical agents in the workplace (Journal of Laws of 2005, No. 11, item 86). Act of December 14, 2012 on waste (Journal of Laws of 2013, item 21) Regulation of the Minister of Health of December 30, 2004 on occupational health and safety related to the presence of chemical agents in the workplace (Journal U. of 2005, No. 11, item 86). Waste Act of December 14, 2012 (Journal of Laws of 2013, item 21). Act of 13 June 2013 on the management of packaging and packaging waste, Journal of Laws 2013, item 888). Government statement of September 24, 2002 - European Agreement on the International Carriage of Dangerous Goods by Road (ADR) (Journal of Laws No. 194, item 1629 and Journal of Laws of 2003, No. 207, item 2013 and 2014).

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorisations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

DIRECTIVE (EU) 2021/1187 on the marketing and use of explosives precursors

Not applicable

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
Methanol - 67-56-1	69 75	

Persistent Organic Pollutants



SAFETY DATA SHEET

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Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 11-Jul-2024

Revision Number 1

DRE-XA11404000ME - 1-Chloro-1,1-difluoroethane 100 µg/mL in Methanol

Not applicable

Dangerous substance category per Seveso Directive (2012/18/EU)

H2 - ACUTE TOXIC

H3 - STOT SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE

P5a - FLAMMABLE LIQUIDS

P5b - FLAMMABLE LIQUIDS

P5c - FLAMMABLE LIQUIDS

Named dangerous substances per Seveso Directive (2012/18/EU)

Chemical name	Lower-tier requirements (tons)	Upper-tier requirements (tons)
Methanol - 67-56-1	500	5000

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Chemical name	Ozone depletion potential (ODP)	Ozone-depleting substances (ODS) regulation (EC) 1005/2009
Chlorodifluoroethane (R142 b) - 75-68-3	0.065 ODP	Group VIII: Hydrochlorofluorocarbons (HCFCs) Group VII: Hydrobromofluorocarbons Group VI: Methyl bromide Group V: 1,1,1-Trichloroethane

International Inventories

TSCA

LGC, to the best of its ability, has confirmed that the chemical substances in this product are listed as "Active" in the EPA (Environmental Protection Agency) "TSCA Inventory Notification (Active-Inactive) Requirements Rule" ("the Final Rule") of Feb 2019, as amended Feb 2021."

DSL/NDSL

Contact supplier for inventory compliance status

EINECS/ELINCS

Contact supplier for inventory compliance status

ENCS

Contact supplier for inventory compliance status

IECSC

Contact supplier for inventory compliance status

KECI

Contact supplier for inventory compliance status

PICCS

Contact supplier for inventory compliance status

AIIC

Contact supplier for inventory compliance status

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 11-Jul-2024

Revision Number 1

DRE-XA11404000ME - 1-Chloro-1,1-difluoroethane 100 µg/mL in Methanol

KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment

Chemical Safety Report A Chemical Safety Assessment is not required for this substance

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3

H220 - Extremely flammable gas
H225 - Highly flammable liquid and vapour
H280 - Contains gas under pressure; may explode if heated
H301 - Toxic if swallowed
H311 - Toxic in contact with skin
H331 - Toxic if inhaled
H370 - Causes damage to organs
H412 - Harmful to aquatic life with long lasting effects
H420 - Harms public health and the environment by destroying ozone in the upper atmosphere

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	Sk*	Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - Vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 11-Jul-2024

Revision Number 1

DRE-XA11404000ME - 1-Chloro-1,1-difluoroethane 100 µg/mL in Methanol

Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method
Flammable liquids	On basis of test data

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AELG(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Revision date 11-Jul-2024

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information in this safety data sheet (SDS) has been prepared with due care and is true and accurate to the best of our knowledge. The user must determine the suitability of the information for its particular purpose, ensure compliance with existing laws and regulations, and be aware that other or additional safety or performance considerations may arise when using, handling and/ or storing the material. The information in this SDS does not purport to be all inclusive or a guarantee as to the properties of the material supplied, and should be used only as a guide. LGC makes no warranties or representations as to the accuracy and completeness of the information contained herein, shall not be held responsible for the suitability of this information for the user's intended purposes or the consequences of such use, and shall not be liable for any damage or loss, howsoever arising, direct or otherwise.

End of Safety Data Sheet