

Revision Date 16-Apr-2012

Revision Number 2

**SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****Product Identifier**

**Product Description:** cis-1,2-Dichloroethylene  
**Cat No.** 113380000; 113380025; 113380100  
**Synonyms** cis-Acetylene dichloride.

**Relevant identified uses of the substance or mixture and uses advised against**

**Recommended Use** Laboratory chemicals  
**Uses advised against** No Information available

**Details of the supplier of the safety data sheet****Company**

Acros Organics BVBA  
Janssen Pharmaceuticalalaan 3a  
2440 Geel, Belgium  
**E-mail address** begel.sdsdesk@thermofisher.com

**Emergency Telephone Number**

For information in the US, call: 001-800-ACROS-01  
For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99  
Emergency Number, US: 001-201-796-7100

CHEMTREC Phone Number, US: 001-800-424-9300  
CHEMTREC Phone Number, Europe: 001-703-527-3887

**SECTION 2. HAZARDS IDENTIFICATION****Classification of the substance or mixture****REGULATION (EC) No 1272/2008**

Acute Inhalation Toxicity - Vapors	Category 4
Chronic aquatic toxicity	Category 3
Flammable liquids.	Category 2

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

**Symbol(s)** F - Highly flammable

Xn - Harmful

**R-phrase(s)** R11 - Highly flammable

R20 - Harmful by inhalation

**Risk Combination Phrases** R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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## SECTION 2. HAZARDS IDENTIFICATION

## Label Elements



## Signal Word

Danger

## Hazard Statements

H332 - Harmful if inhaled

H412 - Harmful to aquatic life with long lasting effects

H225 - Highly flammable liquid and vapor

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

P273 - Avoid release to the environment

P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

P240 - Ground/Bond container and receiving equipment

## Other Hazards

No information available.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	EC-No.	Weight %	CAS-No	67/548/EEC Classification	CLP Classification - Regulation (EC) No 1272/2008	REACH No.
cis-1,2-Dichloroethylene 156-59-2	EEC No. 205-859-7	97	156-59-2	F; R11 Xn; R20 R52-53	Acute Tox. 4 (H332)	-

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

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**SECTION 4. FIRST AID MEASURES****Description of first aid measures****Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

**Skin Contact**

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Obtain medical attention.

**Ingestion**

Clean mouth with water. Get medical attention.

**Inhalation**

Remove from exposure, lie down. Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Obtain medical attention.

**Notes to Physician**

Treat symptomatically

**SECTION 5. FIRE-FIGHTING MEASURES****Extinguishing media****Suitable Extinguishing Media**

Water spray. Carbon dioxide (CO<sub>2</sub>). Dry chemical. Use water spray to cool unopened containers. chemical foam.

**Extinguishing media which must not be used for safety reasons**

No information available.

**Special hazards arising from the substance or mixture**

Flammable. Vapors may travel to source of ignition and flash back.

**Advice for fire-fighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**SECTION 6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

**Environmental precautions**

Prevent further leakage or spillage if safe to do so

**Methods and material for containment and cleaning up**

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

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**SECTION 7. HANDLING AND STORAGE****Precautions for Safe Handling**

Avoid contact with skin and eyes. Do not breathe dust. Do not breathe vapors or spray mist. Use only in area provided with appropriate exhaust ventilation. Use explosion-proof equipment. Use only non-sparking tools.

**Conditions for safe storage, including any incompatibilities**

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep away from heat and sources of ignition. Flammables area.

**Specific End Uses****SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Control parameters****Exposure limits****Component**cis-1,2-  
Dichloroethylene

European Union	The United Kingdom	France	Belgium	Spain
	STEL: 250 ppm 15 min STEL: 1010 mg/m <sup>3</sup> 15 min TWA: 200 ppm 8 hr TWA: 806 mg/m <sup>3</sup> 8 hr			

**Component**cis-1,2-  
Dichloroethylene

Italy	Germany	Portugal	The Netherlands	Finland
	MAK: 200 ppm 8 Stunden. MAK: 800 mg/m <sup>3</sup> 8 Stunden. Peak: 400 ppm Peak: 1600 mg/m <sup>3</sup>	TWA: 200 ppm 8 horas		TWA: 200 ppm 8 tunteina TWA: 800 mg/m <sup>3</sup> 8 tunteina STEL: 250 ppm 15 minuutteina STEL: 1000 mg/m <sup>3</sup> 15 minuutteina

**Component**cis-1,2-  
Dichloroethylene

Austria	Denmark	Switzerland	Poland	Norway
STEL: 800 ppm 15 Minuten STEL: 3160 mg/m <sup>3</sup> 15 Minuten TWA: 200 ppm 8 Stunden TWA: 790 mg/m <sup>3</sup> 8 Stunden	TWA: 790 mg/m <sup>3</sup> 8 timer TWA: 200 ppm 8 timer	STEL: 400 ppm 15 Minuten STEL: 1580 mg/m <sup>3</sup> 15 Minuten MAK: 200 ppm 8 Stunden MAK: 790 mg/m <sup>3</sup> 8 Stunden	NDS: 700 mg/m <sup>3</sup> 8 godzinach	

**Component**cis-1,2-  
Dichloroethylene

Estonia	Gibraltar	Greece	Hungary	Iceland
				TWA: 200 ppm 8 klukkustundum. TWA: 790 mg/m <sup>3</sup> 8 klukkustundum. Ceiling: 400 ppm Ceiling: 1580 mg/m <sup>3</sup>

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Component	Russia - TWA	Slovak Republic	Slovenia	Sweden	Turkey
cis-1,2-Dichloroethylene			TWA: 200 ppm 8 urah TWA: 800 mg/m <sup>3</sup> 8 urah STEL: 800 ppm 15 minutah STEL: 3200 mg/m <sup>3</sup> 15 minutah		

**Biological limit values**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

**Derived No Effect Level (DNEL)**

No information available.

**Predicted No Effect Concentration (PNEC)**

No information available.

**Exposure controls****Engineering Measures**

Ensure adequate ventilation, especially in confined areas

**Personal protective equipment****Eye Protection**

Goggles

**Hand Protection**

Protective gloves

**Skin and body protection**

Wear appropriate protective gloves and clothing to prevent skin exposure

**Respiratory Protection**

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice

**Environmental exposure controls**

No information available.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES****Physical State**

Liquid

**Appearance**

Colorless

**odor**

aromatic

**pH**

No information available.

**Vapor Pressure**

201 mmHg @ 25 °C

**Vapor Density**

3.34 (Air = 1.0)

**Boiling Point/Range**

60°C / 140°F @ 760 mmHg

**Melting Point/Range**

-80°C / -112°F

**Flash Point**

6°C / 42.8°F

**Autoignition Temperature**

440°C / 824°F

**Specific Gravity**

1.280

**Molecular Formula**

C<sub>2</sub> H<sub>2</sub> Cl<sub>2</sub>

**Molecular Weight**

96.94

**SECTION 10. STABILITY AND REACTIVITY**

**cis-1,2-Dichloroethylene**

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**SECTION 10. STABILITY AND REACTIVITY****Reactivity****Chemical Stability**

Stable under normal conditions.

**Possibility of Hazardous Reactions**

**Hazardous Polymerization** Hazardous polymerization does not occur.  
**Hazardous Reactions .** No information available.

**Conditions to Avoid**

Keep away from open flames, hot surfaces and sources of ignition, Exposure to air, Exposure to light, Incompatible products, Exposure to moist air or water.

**Incompatible Materials**

Bases.

**Hazardous Decomposition Products**

Hydrogen chloride gas. Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

**SECTION 11. TOXICOLOGICAL INFORMATION****Information on Toxicological Effects****Acute Toxicity**

**Product Information** No acute toxicity information is available for this product

**Component Information****Chronic Toxicity**

**Carcinogenicity** There are no known carcinogenic chemicals in this product

**Sensitization**

No information available.

**Mutagenic Effects**

No information available

**Reproductive Effects**

No information available.

**Developmental Effects**

No information available.

**Target Organs**

No information available.

**Other Adverse Effects**

The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information

**Endocrine Disruptor Information**

None known

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**SECTION 12. ECOLOGICAL INFORMATION****Toxicity****Ecotoxicity effects**

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
cis-1,2-Dichloroethylene			EC50 = 721 mg/L 5 min EC50 = 905 mg/L 30 min	

**Persistence and degradability**

No information available

**Bioaccumulative potential**

No information available.

**Mobility in soil**

No information available.

**Results of PBT and vPvB assessment****Other adverse effects**

No information available

**SECTION 13. DISPOSAL CONSIDERATIONS****Waste treatment methods****Waste from Residues / Unused Products** Dispose of in accordance with local regulations**Contaminated Packaging** Empty containers should be taken to local recyclers for disposal**SECTION 14. TRANSPORT INFORMATION****IMDG/IMO**

UN-No	1150
Hazard Class	3
Packing Group	II
Proper Shipping Name	1,2-DICHLOROETHYLENE

**ADR**

**cis-1,2-Dichloroethylene**

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**SECTION 14. TRANSPORT INFORMATION**

UN-No	1150
Hazard Class	3
Packing Group	II
Proper Shipping Name	1,2-DICHLOROETHYLENE

**IATA**

UN-No	1150
Hazard Class	3
Packing Group	II
Proper Shipping Name	1,2-DICHLOROETHYLENE

**SECTION 15. REGULATORY INFORMATION****Safety, health and environmental regulations/legislation specific for the substance or mixture****International Inventories**

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
cis-1,2-Dichloroethylene	205-859-7	-		X	-	X	-	X	X	X	X

**Legend****TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**ENCS** - Japan Existing and New Chemical Substances**CHINA** - China Inventory of Existing Chemical Substances**AICS** - Inventory of Chemical Substances**KECL** - Existing and Evaluated Chemical Substances**Chemical Safety Assessment****SECTION 16. OTHER INFORMATION****Full text of R-phrases referred to under sections 2 and 3**

R11 - Highly flammable

R20 - Harmful by inhalation

R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

**cis-1,2-Dichloroethylene****Revision Date 16-Apr-2012****SECTION 16. OTHER INFORMATION****Revision Date** 16-Apr-2012**Revision Summary****Reason for revision** Not applicable**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006****Disclaimer**

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of Safety Data Sheet**