

## SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Version 6.0 Revision Date 30.03.2016

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GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

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

#### 1.1 Product identifiers

Product name : Trichlorotrifluoroethane

REACH No. : A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

CAS-No. : 76-13-1

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

Identified uses : Laboratory chemicals, Manufacture of substances

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

Company : Sigma-Aldrich Inc.  
3050 Spruce Street  
ST. LOUIS MO 63103  
UNITED STATES

Telephone : +1 314 771-5765

Fax : +1 800 325-5052

#### 1.4 Emergency telephone number

Emergency Phone # : (314) 776-6555

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

#### 2.2 Label elements

Not a hazardous substance or mixture.

#### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### SECTION 3: Composition/information on ingredients

#### 3.1 Substances

Synonyms : 1,1,2-Trichloro-1,2,2-trifluoroethane  
1,1,2-Trichloro-trifluoroethane

Formula : C<sub>2</sub>Cl<sub>3</sub>F<sub>3</sub>

CAS-No. : 76-13-1

EC-No. : 200-936-1

No components need to be disclosed according to the applicable regulations.

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## **SECTION 4: First aid measures**

### **4.1 Description of first aid measures**

#### **If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

#### **In case of skin contact**

Wash off with soap and plenty of water.

#### **In case of eye contact**

Flush eyes with water as a precaution.

#### **If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

No data available

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## **SECTION 5: Firefighting measures**

### **5.1 Extinguishing media**

#### **Suitable extinguishing media**

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

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

Nature of decomposition products not known.

### **5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

### **5.4 Further information**

No data available

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## **SECTION 6: Accidental release measures**

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

Avoid breathing vapours, mist or gas.  
For personal protection see section 8.

### **6.2 Environmental precautions**

No special environmental precautions required.

### **6.3 Methods and materials for containment and cleaning up**

Keep in suitable, closed containers for disposal.

### **6.4 Reference to other sections**

For disposal see section 13.

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## **SECTION 7: Handling and storage**

### **7.1 Precautions for safe handling**

For precautions see section 2.2.

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

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.  
Storage class (TRGS 510): Non Combustible Liquids

### **7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

### 8.2 Exposure controls

#### Appropriate engineering controls

General industrial hygiene practice.

#### Personal protective equipment

##### Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

##### Body Protection

Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### Respiratory protection

Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

##### Control of environmental exposure

No special environmental precautions required.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

a) Appearance	Form: liquid
b) Odour	No data available
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	No data available
f) Initial boiling point and boiling range	No data available
g) Flash point	No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	No data available
l) Vapour density	No data available
m) Relative density	No data available
n) Water solubility	No data available

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|----|--|-------------------|
| o) | Partition coefficient: n-octanol/water | No data available |
| p) | Auto-ignition temperature              | No data available |
| q) | Decomposition temperature              | No data available |
| r) | Viscosity                              | No data available |
| s) | Explosive properties                   | No data available |
| t) | Oxidizing properties                   | No data available |

## 9.2 Other safety information

No data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

No data available

### 10.5 Incompatible materials

No data available

### 10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Nature of decomposition products not known.

In the event of fire: see section 5

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - 43,000 mg/kg(1,1,2-Trichlorotrifluoroethane)

Remarks: Behavioral:Somnolence (general depressed activity). Gastrointestinal:Other changes. Skin and Appendages: Other: Hair. Behavioral:General anesthetic.

LC50 Inhalation - Rat - 4 h - 52500 ppm(1,1,2-Trichlorotrifluoroethane)

#### Skin corrosion/irritation

Skin - Rabbit(1,1,2-Trichlorotrifluoroethane)

Result: Mild skin irritation - 24 h

(Draize Test)

#### Serious eye damage/eye irritation

Eyes - Rabbit(1,1,2-Trichlorotrifluoroethane)

Result: Mild eye irritation

#### Respiratory or skin sensitisation

Maximisation Test - Guinea pig(1,1,2-Trichlorotrifluoroethane)

Did not cause sensitisation on laboratory animals.

#### Germ cell mutagenicity

No data available(1,1,2-Trichlorotrifluoroethane)

**Carcinogenicity**

This product is or contains a component that is not classifiable as to its classification.(1,1,2-Trichlorotrifluoroethane)  
(1,1,2-Trichlorotrifluoroethane)

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity**

No data available(1,1,2-Trichlorotrifluoroethane)

**Specific target organ toxicity - single exposure**

No data available(1,1,2-Trichlorotrifluoroethane)

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available(1,1,2-Trichlorotrifluoroethane)

**Additional Information**

RTECS: KJ4000000

prolonged or repeated exposure can cause:, narcosis(1,1,2-Trichlorotrifluoroethane)

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**SECTION 12: Ecological information****12.1 Toxicity**

Toxicity to fish	static test LC50 - Danio rerio (zebra fish) - 7 - 14 mg/l - 96.0 h(1,1,2-Trichlorotrifluoroethane) (DIN 38412)
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Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 71.00 mg/l - 48 h(1,1,2-Trichlorotrifluoroethane)
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**12.2 Persistence and degradability**

Biodegradability	aerobic - Exposure time 27 d(1,1,2-Trichlorotrifluoroethane) Result: < 10 % - Not readily biodegradable.
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**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available(1,1,2-Trichlorotrifluoroethane)

**12.5 Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**12.6 Other adverse effects**

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**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

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**SECTION 14: Transport information****14.1 UN number**

ADR/RID: 3082

IMDG: 3082

IATA: 3082

**14.2 UN proper shipping name**

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1,1,2-Trichlorotrifluoroethane)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1,1,2-Trichlorotrifluoroethane)

IATA: Environmentally hazardous substance, liquid, n.o.s. (1,1,2-Trichlorotrifluoroethane)

**14.3 Transport hazard class(es)**

ADR/RID: 9

IMDG: 9

IATA: 9

**14.4 Packaging group**

ADR/RID: III

IMDG: III

IATA: III

**14.5 Environmental hazards**

ADR/RID: yes

IMDG Marine pollutant: no

IATA: yes

**14.6 Special precautions for user****Further information**

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

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**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

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

**15.2 Chemical safety assessment**

For this product a chemical safety assessment was not carried out

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**SECTION 16: Other information****Further information**

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