

## Safety Data Sheet

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### 1. PRODUCT AND COMPANY IDENTIFICATION

#### 1.1 Product identifiers

Product Name: Trichlorofluoromethane

CAS No.: 75-69-4

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

Identified uses: Laboratory chemicals, Manufacture of substances. For scientific research and development only. Not for use in humans or animals.

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

Brand: MuseChem

Company: ArrakisTek Inc.

#### 1.4 Emergency telephone number

Telephone: +1-862-686-3898

Fax: +1-323-978-5598

E-mail address: [info@musechem.com](mailto:info@musechem.com)

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### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Hazardous to the ozone layer (Category 1), H420

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### 2.2 GHS Label elements, including precautionary statements



Pictogram

Signal word: Warning

Hazard statement(s)

H420 Harms public health and the environment by destroying ozone in the upper atmosphere.

Precautionary statement(s)

P502 Refer to manufacturer/ supplier for information on recovery/ recycling.

#### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substances

Synonyms : Fluorotrichloromethane

CFC-11

Formula : CCl3F

Molecular weight : 137.37 g/mol

CAS-No. : 75-69-4

EC-No. : 200-892-3

#### **Hazardous components**

Component	Classification	Concentration
Trichlorofluoromethane		
	Ozone 1; H420	<= 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

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### **4. FIRST AID MEASURES**

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

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

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

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

After eye contact: rinse out with plenty of water. Remove contact lenses.

##### **If swallowed**

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

#### **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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### **5. FIRE-FIGHTING MEASURES**

#### **5.1 Extinguishing media**

##### **Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

##### **Unsuitable extinguishing media**

For this substance/mixture no limitations of extinguishing agents are given

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

Carbon oxides

Hydrogen chloride gas

Hydrogen fluoride

Not combustible.

Ambient fire may liberate hazardous vapours.

#### **5.3 Advice for firefighters**

In the event of fire, wear self-contained breathing apparatus.

#### **5.4 Further information**

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire

extinguishing water from contaminating surface water or the ground water system.

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## 6. ACCIDENTAL RELEASE MEASURES

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

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact.

Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

### 6.2 Environmental precautions

Do not let product enter drains.

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

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb®).

Dispose of properly. Clean up affected area.

### 6.4 Reference to other sections

For disposal see section 13.

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## 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

#### Storage conditions

Tightly closed.

#### Storage stability

Recommended storage temperature

2 - 8 °C

Contents under pressure.

Storage class (TRGS 510): 10: 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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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### Ingredients with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
Trichlorofluoromethane	75-69-4	C	1,000 ppm	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Not classifiable as a human carcinogen		
		C	1,000 ppm 5,600 mg/m <sup>3</sup>	USA. NIOSH Recommended Exposure Limits

		TWA	1,000 ppm 5,600 mg/m <sup>3</sup>	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		C	1,000 ppm 5,600 mg/m <sup>3</sup>	California permissible exposure limits for chemical contaminants (Title 8, Article 107)

## 8.2 Exposure controls

### Appropriate engineering controls

Change contaminated clothing. Wash hands after working with substance.

### 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). Safety glasses

#### Respiratory protection

Not required; except in case of aerosol formation.

### Control of environmental exposure

Do not let product enter drains.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

- |   |  |
|---|--|
| a) Appearance                                   | Form: liquid, clear<br>Color: colorless                      |
| b) Odor   | No data available  |
| c) Odor Threshold                               | No data available  |
| d) pH   | No data available  |
| e) Melting point/freezing point                 | Melting point/range: -111.0 - -110.0 °C (-167.8 - -166.0 °F) |
| f) Initial boiling point and boiling range      | 23.7 °C 74.7 °F - lit.                                       |
| g) Flash point                                  | Not applicable   |
| h) Evaporation rate                             | No data available  |
| i) Flammability (solid, gas)                    | No data available  |
| j) Upper/lower flammability or explosive limits | No data available  |
| k) Vapor pressure                               | 885.7 hPa at 20.0 °C (68.0 °F)                               |
| l) Vapor density                                | No data available  |
| m) Relative density                             | No data available  |
| n) Water solubility                             | 1 g/l  |

o) Partition coefficient:

n-octanol/water log Pow: 2.53 - Bioaccumulation is not expected.

p) Autoignition

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

Surface tension 18.0 mN/m at 25.0 °C (77.0 °F)

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## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### 10.3 Possibility of hazardous reactions

no information available

### 10.4 Conditions to avoid

no information available

### 10.5 Incompatible materials

Strong oxidizing agents, Sodium/sodium oxides, Potassium, Magnesium, Aluminum, Zinc

### 10.6 Hazardous decomposition products

In the event of fire: see section 5

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## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - > 15,000 mg/kg

Inhalation: No data available

Dermal: No data available

No data available

#### Skin corrosion/irritation

No data available

#### Serious eye damage/eye irritation

No data available

#### Respiratory or skin sensitisation

No data available

#### Germ cell mutagenicity

No data available

#### Carcinogenicity

- IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- NTP: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

May be fatal if swallowed and enters airways.

**Additional Information**

No data available

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## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

No data available

### 12.2 Persistence and degradability

No data available

### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### 12.6 Other adverse effects

No data available

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## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

**Product**

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

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## 14. TRANSPORT INFORMATION

**DOT (US)**

UN number: 3082 Class: 9 Packing group: III



Tel: +1 862-686-3898

Email: [info@musechem.com](mailto:info@musechem.com)

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s.

(Trichlorofluoromethane)

Reportable Quantity (RQ): 5000 lbs

Reportable Quantity (RQ): 10 lbs

Poison Inhalation Hazard: No

#### **IMDG**

Not dangerous goods

#### **IATA**

Not dangerous goods

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### **15. REGULATORY INFORMATION**

#### **SARA 302 Components**

This material does not contain any components with a section 302 EHS TPQ.

#### **SARA 313 Components**

The following components are subject to reporting levels established by SARA Title III, Section 313:

Trichlorofluoromethane	CAS-No.	Revision Date
	75-69-4	2007-07-01

#### **SARA 311/312 Hazards**

Acute Health Hazard

#### **Massachusetts Right To Know Components**

No components are subject to the Massachusetts Right to Know Act.

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### **16. OTHER INFORMATION**

#### **Further information**

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. MuseChem and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.