

Safety Data Sheet

Trifluoromethanesulfonic acid

Revision Date: 01/13/2011

Date Issued: 2/21/2018

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product name	Trifluoromethanesulfonic acid
Product code	KI-0008
CAS	1493-13-6
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.
Identified uses	Laboratory chemicals, Manufacture of substances
Supplier	IoLiTec Ionic Liquids Technologies GmbH Salzstrasse 184 D – 74076 Heilbronn Germany
Telephone	+49 (0)7131-89839-0
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Emergency telephone	+49 (0)176-84850874
Email	msds@iolitec.de

2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Oral (Category 4)

Acute toxicity, Dermal (Category 4)

Skin corrosion (Category 1A)

Chronic aquatic toxicity (Category 4)

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Classification (67/548/EEC or 1999/45/EC)

Harmful in contact with skin and if swallowed. Causes severe burns.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)



Signal word: **Danger**

Hazard statements

H-phrases

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H413	May cause long lasting harmful effects to aquatic life.

Precautionary statements

P phrases

P280	Wear protective gloves/protective clothing/eyeprotection/face protection.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.

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Labelling (67/548/EEC or 1999/45/EC)

C Corrosive

Risk phrases

R21/22 Harmful in contact with skin and if swallowed.

R35 Causes severe burns.

Safety phrases

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient name	Contents	Health(Class)	Risk(H/No.)
Trifluoromethanesulfonic acid	>98%	Skin Corr. 1A (H314)	Acute Tox. 4 (H302)

4 FIRST AID MEASURES

General Consult a physician. Show this safety data sheet to the doctor in attendance.

Inhalation If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician.

Ingestion Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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Skin	Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.
Eyes	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

5 FIRE FIGHTING MEASURES

Extinguishing media	Alcohol-resistant foam, dry chemical or carbon dioxide. Do not use Water
Special hazards arising from the substance or mixture	Carbon oxides, Sulphur oxides, Hydrogen fluoride
Protective measures in fire	Wear self contained breathing apparatus for fire fighting if necessary.
Further information	The product itself does not burn.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions during spill	Wear protective clothing and avoid inhalation of vapor, skin or eye contact. Ensure adequate ventilation. Evacuate personnel to safe areas.
Precautions to protect environment	Avoid washing into water courses. Avoid contaminating public drains or water supply.

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Spill cleanup methods

Avoid contact with skin or inhalation of spillage, dust or vapor, Avoid dust formation. Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7 HANDLING AND STORAGE

Handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Storage

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Handle and store under inert gas.

8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Protective equipment

Safety goggles. Chemical resistant gloves. Protective clothing.

Process control measures

Provide eyewash station and safety shower. Use engineering controls to reduce air contamination to permissible exposure levels.

Ventilation

Provide adequate general and local exhaust ventilation.

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Respirators

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH(US) or CEN (EU).

Other protection

Wear overalls and industrial shoes. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid
Color	Colourless to yellow
Melting Point	- 39,99°C
Boiling point	162 °C at 1013 hPa
Flash point	n/a
Vapor pressure	11 hPa at 25 °C
Density	1,696 g/cm ³ at 25 °C

10 STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions.
Conditions to avoid	Exposure to moisture

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Hazardous

Decomposition Products

Other decomposition products - No data available.

11 TOXICOLOGICAL INFORMATION

Acute toxicity

LD50 Oral – Rat - 1.605 mg/kg

LD50 Dermal – Rat - 400 2.000 mg/kg

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 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

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

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Additional Information

RTECS: Not available

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12 ECOLOGICAL INFORMATION

Toxicity Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - > 2.000 mg/l - 96 h

Persistence and degradability Biodegradability Result: - Not readily biodegradable.

Bioaccumulative potential No data available

Mobility in soil

No data available

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.

Other adverse effects

No data available

13 DISPOSAL CONSIDERATIONS

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Waste treatment methods

Product

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

Contaminated packaging

Dispose of as unused product.

14 TRANSPORT INFORMATION

UN-Number

ADR/RID: 3265

IMDG: 3265

IATA: 3265

UN proper shipping name

ADR/RID: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
(Trifluoromethanesulphonic acid)

IMDG: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
(Trifluoromethanesulphonic acid)

IATA: Corrosive liquid, acidic, organic, n.o.s.
(Trifluoromethanesulphonic acid)

Transport hazard class(es)

ADR/RID: 8

IMDG: 8

IATA: 8

Packaging group

ADR/RID: II

IMDG: II

IATA: II

Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

15 REGULATORY INFORMATION

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

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

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

16 OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

Acute Tox.	Acute toxicity
H302	Harmful if swallowed.
H302 + H312	Harmful if swallowed or in contact with skin
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
Skin Corr.	Skin corrosion

Full text of R-phrases referred to under sections 2 and 3

C	Corrosive
R21/22	Harmful in contact with skin and if swallowed.
R35	Causes severe burns.

DISCLAIMER

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPOSED TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE.

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