

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
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1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product name:

Trifluoroacetic acid

1.1. Catalog No.:

683306

1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical
uses: R&D

1.3. Uses advised against:

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Am Wieseneck 7

04451 Cunnersdorf
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1.4. Emergency telephone number

HPC Standards Tel. +49 34291 3372-36
This number is only available during office hours.

2. HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008
GHS05 corrosion
Skin Corr. 1A H314 Causes severe skin burns and eye damage.
GHS07
Acute Tox. 4 H332 Harmful if inhaled.
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

2.2. Label elements

2.2.1. Pictogram



2.2.2.

- 2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

- Hazard pictograms

GHS05 GHS07

- Signal word Danger

- Hazard statements

H332 Harmful if inhaled.

H314 Causes severe skin burns and eye damage.

H412 Harmful to aquatic life with long lasting effects.

- Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

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/doctor.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- 2.3 Other hazards

- Results of PBT and vPvB assessment

- PBT: Not applicable.

- vPvB: Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

- 3.1 Chemical characterisation: Substances

- CAS No. Description

76-05-1 Trifluoroacetic acid

- Identification number(s) None

- EC number: 200-929-3

- Index number: 607-091-00-1

- RTECS: AJ9625000

- Additional information: For the wording of the listed hazard phrases refer to section 16.

3.1.1. Formula

C₂HF₃O₂

3.1.2. Molecular Weight (g/mol)

114.02

3.1.3. CAS-No.

76-05-1

4. FIRST AID MEASURES

- 4.1 Description of first aid measures
- General information:
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may occur even after several hours; therefore medical observation for at least 48 hours after the accident is recommended.
- After inhalation:
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient in recovery position for transport.
Seek medical treatment.
- After skin contact:
Immediately wash with water and soap and rinse thoroughly.
Seek immediate medical advice.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: Rinse mouth. Do not induce vomiting.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

5. FIRE-FIGHTING MEASURES

- 5.1 Extinguishing media
- Suitable extinguishing agents: Use fire extinguishing methods suitable for surrounding conditions.
- 5.2 Special hazards arising from the substance or mixture
Formation of toxic gases is possible during heating or in case of fire.
- 5.3 Advice for firefighters
- Protective equipment:
Mouth respiratory protective device.
Wear self-contained respiratory protective device.

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.
- 6.2 Environmental precautions:
Inform respective authorities in case of seepage into water course or sewage system.
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- 6.3 Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralising agent.
Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation
- 6.4 Reference to other sections
See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7. HANDLING AND STORAGE

- 7.1 Precautions for safe handling
Ensure good ventilation/extraction at the workplace.
Store in cool, dry place in tightly closed receptacles.
- Information about fire - and explosion protection: No special measures required.
- 7.2 Conditions for safe storage, including any incompatibilities
- Storage:
 - Requirements to be met by storerooms and receptacles:
Please refer to the manufacturers certificate for specific storage and transport temperature conditions.
 - Store only in the original receptacle unless other advice is given on the CoA.
 - Keep container in a well-ventilated place. Keep away from sources of ignition and heat.
 - Information about storage in one common storage facility: Store away from foodstuffs.
 - Further information about storage conditions: Keep container tightly sealed.
- 7.3 Specific end use(s) No further relevant information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Additional information about design of technical facilities: No further data; see item 7.
- 8.1 Control parameters
- Ingredients with limit values that require monitoring at the workplace: Not required.
- Additional information: Lists used were valid at the time of SDS preparation.
- 8.2 Exposure controls
- Personal protective equipment:
 - General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
 - Respiratory protection:
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
 - Protection of hands:
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374
Protective gloves
 - Material of gloves PVC gloves
 - Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
 - Eye protection:
Tightly sealed goggles

9. PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 Information on basic physical and chemical properties
- General Information
- Appearance:
Form: Liquid
Colour: Light yellow
- Odour: Pungent
- Odour threshold: Not determined.
- pH-value: 1
- Change in condition
Melting point/freezing point: -15 °C
Initial boiling point and boiling range: 72.5 °C
- Flash point: Not applicable.
- Flammability (solid, gas): Not determined.
- Ignition temperature: Not determined
- Decomposition temperature: Not determined.
- Auto-ignition temperature: Not determined.
- Explosive properties: Not determined.
- Explosion limits:
Lower: Not determined.
Upper: Not determined.
- Vapour pressure at 20 °C: 124 hPa
- Density at 20 °C: 1.52 g/cm³
- Relative density Not determined.
- Vapour density Not determined.
- Evaporation rate Not determined.
- Solubility in / Miscibility with
water at 20 °C: 1520 g/l
- Partition coefficient: n-octanol/water: - 2.1 LogP
- Viscosity:
Dynamic at 20 °C: 1.8 mPas
Kinematic: Not determined.
- 9.2 Other information No further relevant information available.

10. STABILITY AND REACTIVITY

- 10.1 Reactivity
Stable under normal conditions.
No further relevant information available.
- 10.2 Chemical stability Stable under normal conditions.
Thermal decomposition / conditions to be avoided:
Formation of toxic gases is possible during heating or in case of fire.
- 10.3 Possibility of hazardous reactions No dangerous reactions known.
- 10.4 Conditions to avoid Heat.
- 10.5 Incompatible materials: Strong oxidizing agents.
- 10.6 Hazardous decomposition products:
Formation of toxic gases is possible during heating or in case of fire.

11. TOXICOLOGICAL INFORMATION

- 11.1 Information on toxicological effects
- Acute toxicity
Harmful if inhaled.
- Primary irritant effect:
Skin corrosion/irritation
Causes severe skin burns and eye damage.
- Serious eye damage/irritation
Causes severe skin burns and eye damage.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- Carcinogenicity Based on available data, the classification criteria are not met.
- Reproductive toxicity Based on available data, the classification criteria are not met.
- STOT-single exposure Based on available data, the classification criteria are not met.
- STOT-repeated exposure Based on available data, the classification criteria are not met.
- Aspiration hazard Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

- 12.1 Toxicity
 - Aquatic toxicity:
EC50/48 h 1,200 mg/l (daphnia)
LC50/96 h >1,200 mg/l (fish)
IC50/72 h >1,200 mg/l (Algae)
- 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- Ecotoxicological effects:
 - Remark: Harmful to fish
- Additional ecological information:
 - General notes:
Water hazard class 2 (German Regulation) (Assessment by list): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Must not reach sewage water or drainage ditch undiluted or unneutralised.
Danger to drinking water if even small quantities leak into the ground.
Harmful to aquatic organisms
Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.
- 12.5 Results of PBT and vPvB assessment
 - PBT: Not applicable.
 - vPvB: Not applicable.
- 12.6 Other adverse effects No further relevant information available.

13. DISPOSAL CONSIDERATIONS

- 13.1 Waste treatment methods
 - Recommendation
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- European waste catalogue
Waste disposal key numbers from EWC have to be assigned depending on origin and processing.
- Uncleaned packaging:
 - Recommendation: Dispose of in accordance with national regulations.
- Recommended cleansing agents: Water, if necessary together with cleansing agents.

14. TRANSPORT INFORMATION

- 14.1 UN-Number
 - ADR, IMDG, IATA UN2699
 - ADR 2699 TRIFLUOROACETIC ACID

- IMDG, IATA TRIFLUOROACETIC ACID
- 14.3 Transport hazard class(es)
- ADR, IMDG, IATA
- Class 8 Corrosive substances.
- Label 8
- 14.4 Packing group
- ADR, IMDG, IATA I
- 14.5 Environmental hazards: Not applicable.
- 14.6 Special precautions for user Warning: Corrosive substances.
- Danger code (Kemler): 88
- EMS Number: F-A,S-B
- Segregation groups Acids
- Stowage Category B
- Stowage Code SW1 Protected from sources of heat.
- SW2 Clear of living quarters.
- Handling Code H2 Keep as cool as reasonably practicable
- Segregation Code SG36 Stow "separated from" SGG18-alkalis.
- SG49 Stow "separated from" SGG6-cyanides
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.
- Transport/Additional information:
- ADR
- Limited quantities (LQ) 0
- Excepted quantities (EQ) Code: E0
- Not permitted as Excepted Quantity
- Transport category 1
- Tunnel restriction code E
- UN "Model Regulation": UN 2699 TRIFLUOROACETIC ACID, 8, I

15. REGULATORY INFORMATION

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Directive 2012/18/EU
- Named dangerous substances - ANNEX I Substance is not listed.
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. OTHER INFORMATION

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. For lab use only!