



Infosafe No™	1CHO5	Issue Date : May 2020	RE-ISSUED by CHEMSUPP
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Product Name : **TRIFLUOROACETIC ACID**

Classified as hazardous

1. Identification

GHS Product Identifier TRIFLUOROACETIC ACID

Company Name CHEM-SUPPLY PTY LTD (ABN 19 008 264 211)

Address 38 - 50 Bedford Street GILLMAN
SA 5013 Australia

Telephone/Fax Number Tel: (08) 8440-2000

Emergency phone number CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

Recommended use of the chemical and restrictions on use Strong non-oxidising acid, solvent, catalyst and laboratory reagent.

Other Names**Name****Product Code**

Trifluoroacetic acid, peptide synthesis grade

TS181

Other Information

Chem-Supply Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon Chem-Supply Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of Chem-Supply Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

2. Hazard Identification

GHS classification of the substance/mixture Eye Damage/Irritation: Category 1
Acute Toxicity - Inhalation: Category 4
Skin Corrosion/Irritation: Category 1A
Hazardous to the Aquatic Environment - Long-Term Hazard: Category 3
Corrosive to Metals: Category 1

Signal Word (s)

DANGER

Hazard Statement (s)

H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H332 Harmful if inhaled.
H412 Harmful to aquatic life with long lasting effects.

Pictogram (s)**Precautionary statement – Prevention**

P234 Keep only in original container.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.

Precautionary statement – Response

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P363 Wash contaminated clothing before reuse.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P310 Immediately call a POISON CENTER or doctor/physician.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,



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Precautionary statement – Storage	if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER or doctor/physician.
Precautionary statement – Disposal	P390 Absorb spillage to prevent material damage. P391 Collect spillage. P405 Store locked up. P406 Store in corrosive resistant/... container with a resistant inner liner. P501 Dispose of contents/container in accordance with local, state and federal government requirements.

3. Composition/information on ingredients

Chemical	Liquid				
Characterization					
Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	<u>Hazard Symbol</u>	<u>Risk Phrase</u>
	Trifluoroacetic acid	76-05-1	98-100 %	Xn, C	R20, R35

4. First-aid measures

Inhalation	If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Immediately medical attention is required.
Ingestion	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek immediate medical advice.
Skin	Remove contaminated clothing and shoes immediately. Wash affected areas with copious quantities of water and soap. Seek medical attention.
Eye contact	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek immediate medical assistance.
First Aid Facilities	Maintain eyewash fountain and drench facilities in work area.
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of the patient.
Other Information	For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 766) or a doctor.

5. Fire-fighting measures

Suitable extinguishing media	Use alcohol-resistant foam, water spray, dry chemical or carbon dioxide.
Hazards from Combustion Products	Carbon monoxide (CO) Carbon dioxide (CO2) Hydrogen fluoride
Special Protective Equipment for fire fighters	Fire fighters to wear self-contained breathing apparatus if risk of exposure to vapour or products of combustion.
Specific hazards arising from the chemical	Carbon oxides, Hydrogen fluoride.
Hazchem Code	2X

6. Accidental release measures

Personal Precautions	Evacuate the area of all non-essential personnel. Use personal protective equipment listed in Section 8.
Personal Protection	Ensure adequate ventilation. Avoid breathing vapours, mist or gas. Use personal protective equipment.
Clean-up Methods - Small Spillages	Wear protective clothing specified for normal operations (see Section 8)
Clean-up Methods - Large Spillages	Absorb or contain liquid with sand, earth or spill control material. Shovel up using non sparking tools and place in a labelled, sealable container for subsequent safe disposal. Put leaking containers in a labelled drum or overdrum.
Environmental Precautions	Seek expert advice on handling and disposal. Prevent further leakage or spillage if safe to do so. Avoid release to the environment. Do NOT let product enter drains.

7. Handling and storage

Precautions for Safe Handling	Use local exhaust extraction. Do not eat, drink or smoke when using this product. Eye wash facilities and emergency shower must be available when handling this product. Good personal hygiene
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procedures should be implemented. Take off contaminated clothing and wash it before reuse. Wash promptly with soap and water if skin becomes contaminated. Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Conditions for safe storage, including any incompatibilities Store in a cool, dry place. Store in well ventilated area. Keep containers securely sealed and protected against physical damage. Keep container upright. Hygroscopic

Storage Regulations Refer Australian Standard AS 3780 - 1994 'The storage and handling of corrosive substances'.

8. Exposure controls/personal protection

Other Exposure Information No exposure standards have been established for this product by Safe Work Australia, however, the TWA exposure standard for dusts/mists not otherwise specified is 10 mg/m³. All atmospheric contamination should be kept to as low a level as is workable.

Appropriate engineering controls Maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods.

Respiratory Protection Where sufficient ventilation is not available, avoid breathing dusts by wearing an AS 1716 approved P1 or P2 particulate filter respirator. Final choice of appropriate breathing protection is dependant upon actual airborne concentrations and the type of breathing protection required will vary according to individual circumstances. Expert advice may be required to make this decision. Reference should be made to Australian/New Zealand Standards AS/NZS 1715, Selection, Use and maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices.

Eye Protection Safety glasses with side shields, goggles or full faceshield should be worn as described in Australian Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

Hand Protection Wear gloves of impervious material conforming to AS/NZS 2161: Occupational protective gloves - Selection, use and maintenance. Final choice of appropriate glove type will vary according to individual circumstances. This can include methods of handling, and engineering controls as determined by appropriate risk assessments. Avoid skin contact when removing gloves from hands, do not touch the gloves outer surface. Dispose of gloves as hazardous waste.

Personal Protective Equipment Personal protective equipment should not solely be relied upon to control risk and should only be used when all other reasonably practicable control measures do not eliminate or sufficiently minimise risk. Guidance in selecting personal protective equipment can be obtained from Australian, Australian/New Zealand or other approved standards.

Footwear Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.

Body Protection Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Hygiene Measures Ensure a high level of personal hygiene is maintained when using this product. Always wash hands before eating, drinking, smoking or using the toilet.

9. Physical and chemical properties

Form Liquid

Appearance Colourless, hygroscopic liquid.

Odour Pungent odour.

Melting Point -15.4 °C

Boiling Point 72.4 °C

Solubility in Water Soluble.

Specific Gravity 1.489 g/cm³ @ 20°C.

pH 1.0 g/l @ 20°C

Vapour Pressure 130.0 hPa @20°C
142.7 hPa @25°C

Partition Coefficient: log pow: -2.10

n-octanol/water

Flash Point > 100°C closed cup. (Tested to Annex V of Directive 67/548/EEC).

Molecular Weight 114.02

10. Stability and reactivity**Chemical Stability** Stable under normal use conditons.



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Incompatible Materials	Metals, Oxidizing agents, Strong bases, Epoxides, Alcohols, Steel (all types and surface treatments), Aluminium. Reacts violently with: Alkali metals. Exothermic in contact with water.
Hazardous Decomposition Products	Carbon monoxide (CO) Carbon dioxide (CO ₂) Hydrogen fluoride.

11. Toxicological Information

Acute Toxicity - Oral	200-400 mg/kg (rat)
Acute Toxicity - Inhalation	10 mg/L/2h (rat)
Ingestion	Causes severe burns if swallowed.
Inhalation	Harmful by inhalation. Inflammation and edema of the larynx and bronchi, pneumonitis, burning sensation, cough, wheezing, shortness of breath, laryngitis, nausea, headache, vomiting.
Skin	Causes severe burns.
Eye	Causes severe burns.
Respiratory sensitisation	Not classified based on available information.
Skin Sensitisation	Not classified based on available information.
Germ cell mutagenicity	Not classified based on available information.
Carcinogenicity	Not identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive Toxicity	Not classified based on available information.
STOT-single exposure	Not classified based on available information.
STOT-repeated exposure	Not classified based on available information.
Serious eye damage/irritation	Eye Damage/Irritation: Category 1
Skin corrosion/irritation	Skin Corrosion/Irritation: Category 1A
Other Information	Product is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes and skin.

12. Ecological information

Ecological Information	Harmful due to pH shift.
Persistence and degradability	Not readily biodegradable. (OECD Test Guideline 301D)
Mobility	The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces. Will likely be mobile in the environment due to its volatility. Disperses rapidly in air.
Bioaccumulative Potential	No bioaccumulation is to be expected (log P(o/w) -2.10).
Other Adverse Effects	Harmful to aquatic life with long lasting effects.
Acute Toxicity - Fish	LC50 - Danio rerio (zebra fish) - > 1,000 mg/l, 96 h. (OECD Test Guideline 203)
Acute Toxicity - Daphnia	EC60 - Daphnia magna (water flea) - 55.00 mg/l, 24 h.
Acute Toxicity - Algae	Desmodesmus subspicatus (Scenedesmus subspicatus) -> 100mg/l, 72h.

13. Disposal considerations

Disposal Considerations	Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations.
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14. Transport information



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Transport Information	Dangerous goods of Class 8 (Corrosive) are incompatible in a placard load with any of the following: Class 1, Class 4.3, Class 5, Class 6, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are acids, Class 7; and are incompatible with food and food packaging in any quantity.
U.N. Number	2699
UN proper shipping name	TRIFLUOROACETIC ACID
Transport hazard class(es)	8
Hazchem Code	2X
Packaging Method	3.8.8RT5
Packing Group	I
EPG Number	8A1
IERG Number	37
UN Number (Road Transport)	2699

15. Regulatory information

Regulatory Information	Listed in the Australian Inventory of Chemical Substances (AICS). Not listed under WHS Regulation 2011, Schedule 10 - Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.
Poisons Schedule	S6
Hazard Category	Harmful, Corrosive

16. Other Information

Literature References	<p>Commonwealth Department of Health and Aged Care, 'Standard for the Uniform Scheduling of Drugs and Poisons No. 18', Commonwealth of Australia, Canberra 2002.</p> <p>Lewis, Richard J. Sr. 'Hawley's Condensed Chemical Dictionary 13th. Ed.', Rev., John Wiley & Sons, Inc., NY, 1997.</p> <p>National Road Transport Commission, 'Australian Dangerous Goods Code 6th. Ed.', AGPS, Canberra, 1998.</p> <p>South Australia Government, 'Approved Code of Practice for the Labelling of Workplace Substances', 1995.</p> <p>Standards Australia, 'SAA/SNZ HB76:1997 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand, 1997.</p> <p>Worksafe Australia, 'Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(1999)]', AusInfo, Canberra 1999.</p> <p>Worksafe Australia, 'List of Designated Hazardous Substances [NOHSC:10005(1999)]', AusInfo, Canberra 1999.</p> <p>Worksafe Australia, 'National Code of Practice for the Labelling of Workplace Substances [NOHSC:2012(1994)]', AGPS, Canberra 1994.</p> <p>Worksafe Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)]', AusInfo, Canberra 1995.</p>
Contact Person/Point	<p>Paul McCarthy Ph. (08) 8440 2000 DISCLAIMER STATEMENT:</p> <p>All information provided in this data sheet or by our technical representatives is compiled from the best knowledge available to us. However, since data, safety standards and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, we make no warranty either expressed or implied, with respect to the completeness or accuracy to the information contained herein. Chem-Supply accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet or by our technical representatives.</p>
Empirical Formula & Structural Formula	<p>CF₃COOH</p> <p>...End Of MSDS...</p>

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