

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Trifluoroacetic acid, eluent additive fo

Revision: 11.03.2025

Product code: AC16.00154

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

### 1.1. Product identifier

Trifluoroacetic acid, eluent additive fo

REACH Registration Number: 01-2119548396-29-XXXX  
CAS No: 76-05-1  
Index No: 607-091-00-1  
EC No: 200-929-3

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

#### Use of the substance/mixture

Reagents and laboratory chemicals  
Only for laboratory and analysis purposes.

#### Uses advised against

Do not use for private purposes (household).

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

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

Company name: AnalytiChem Services, Unipessoal, Lda  
Street: Rua de Júlio Dinis 676 7º  
Place: N-4050-320 Porto  
Telephone: +351 226002917  
E-mail: info@analytichem.com  
Contact person: SDS service department  
E-mail: SDS@analytichem.com  
Internet: www.analytichem.com  
Responsible Department: SDS service department

#### Supplier or manufacturer details

Company name: AnalytiChem Belgium NV  
Street: Industriezone "De Arend" 2  
Place: B-8210 Zedelgem  
Telephone: +32 50 28 83 20  
E-mail: info.be@analytichem.com  
Contact person: SDS service department  
E-mail: SDS@analytichem.com  
Responsible Department: AnalytiChem:  
EU-Belgium: AnalytiChem Belgium, Industriezone "De Arend" 2, 8210 Zedelgem, Belgium, +32 50 28 83 20  
EU-Germany: AnalytiChem Germany, Stempelstrasse 6, 47167 Duisburg, Germany, +49 203 51 94 – 200  
EU-Netherlands: AnalytiChem Netherlands, Communicatieweg 7, 3641 SG Mijdrecht, The Netherlands, +31 297 286848  
UK: AnalytiChem UK, Unit 7 Launton Business Center, Murdock Road, Bicester, OX26 4XB, England, +44 1869 355 500  
USA: AnalytiChem USA, 227 China Road, Winslow, Maine, 04901, United States, +1 800-244-8378  
Canada: AnalytiChem Canada, 21800 Clark Graham Avenue, Baie d'Urfe, H9X 4B6, Canada, +1 514-457-0701  
Australia: ORE Research & Exploration Pty Ltd, 37A Hosie Street, Bayswater North, 3153, Australia, +61 3 9729 0333  
+353 1 901 4670 (CHEMTREC)

### 1.4. Emergency telephone number:

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## Further Information

No data available

## SECTION 2: Hazards identification

## 2.1. Classification of the substance or mixture

## Regulation (EC) No 1272/2008

Acute Tox. 4; H332

Skin Corr. 1A; H314

Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

## 2.2. Label elements

## Regulation (EC) No 1272/2008

Signal word:

Danger

Pictograms:



## Hazard statements

H314

Causes severe skin burns and eye damage.

H332

Harmful if inhaled.

H412

Harmful to aquatic life with long lasting effects.

## Precautionary statements

P273

Avoid release to the environment.

P280

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

P301+P330+P331

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P305+P351+P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308

IF exposed or concerned:

P310

Immediately call a POISON CENTER/doctor.

## 2.3. Other hazards

No data available

## SECTION 3: Composition/information on ingredients

## 3.1. Substances

Sum formula:

CF<sub>3</sub>COOH

Molecular weight:

114,02 g/mol

## Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
76-05-1	trifluoroacetic acid			100 %
	200-929-3	607-091-00-1	01-2119548396-29-XXXX	
	Acute Tox. 4, Skin Corr. 1A, Aquatic Chronic 3; H332 H314 H412			

Full text of H and EUH statements: see section 16.

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## Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
76-05-1	200-929-3	trifluoroacetic acid	100 %
		inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists)	

## Further Information

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

## SECTION 4: First aid measures

## 4.1. Description of first aid measures

## General information

Self-protection of the first aider

## After inhalation

Provide fresh air.

If breathing is irregular or stopped, administer artificial respiration.

Call a physician immediately.

## After contact with skin

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

Call a physician immediately.

## After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Remove contact lenses, if present and easy to do. Continue rinsing.

## After ingestion

Rinse mouth immediately and drink plenty of water.

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

Do NOT induce vomiting.

Do not allow a neutralisation agent to be drunk.

Call a physician immediately.

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

Irritant

corrosive

Dyspnoea

Cough

Gastrointestinal complaints

Vomiting

Circulatory collapse

Risk of serious damage to eyes.

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

No data available

## SECTION 5: Firefighting measures

## 5.1. Extinguishing media

## Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

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**Unsuitable extinguishing media**

no restriction

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

Non-combustible liquids

Hazardous combustion products

In case of fire may be liberated: Hydrogen fluoride

**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

In case of fire and/or explosion do not breathe fumes.

Avoid contact with skin, eyes and clothes.

**Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Use water spray jet to protect personnel and to cool endangered containers.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

Emergency procedures

Consult an expert

Do not breathe dust/fume/gas/mist/vapours/spray.

**For emergency responders**

Precautionary statements For emergency responders : Personal protection equipment: see section 8

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

**6.3. Methods and material for containment and cleaning up****For containment**

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Collect in closed and suitable containers for disposal.

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

**For cleaning up**

Clean contaminated articles and floor according to the environmental legislation.

**Other information**

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

Avoid exposure - obtain special instructions before use.

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Read label before use. Handle and open container with care.  
When using do not eat, drink, smoke, sniff. Keep container tightly closed.  
Use personal protection equipment. Use extractor hood (laboratory).  
Do not breathe vapour/aerosol. Provide adequate ventilation.

**Advice on protection against fire and explosion**

Usual measures for fire prevention.

**Advice on general occupational hygiene**

Keep away from food, drink and animal feedingstuffs.

The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

**Further information on handling**

Take off immediately all contaminated clothing and wash it before reuse.

Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. If handled uncovered, arrangements with local exhaust ventilation have to be used.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed.

Store in a dry place.

**Hints on joint storage**

national regulations

**Further information on storage conditions**

storage temperature < +30°C

Unsuitable container/equipment material: Metal

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

Laboratory chemicals

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****DNEL/DMEL values**

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
76-05-1	trifluoroacetic acid			
Worker DNEL, long-term		inhalation	local	2,67 mg/m <sup>3</sup>
Worker DNEL, acute		inhalation	local	16 mg/m <sup>3</sup>
Consumer DNEL, long-term		oral	systemic	0,042 mg/kg bw/day

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## PNEC values

CAS No	Substance	
Environmental compartment		Value
76-05-1	trifluoroacetic acid	
Freshwater		0,56 mg/l
Freshwater (intermittent releases)		2,37 mg/l
Marine water		0,056 mg/l
Freshwater sediment		2,36 mg/kg
Marine sediment		0,236 mg/kg
Micro-organisms in sewage treatment plants (STP)		83,2 mg/l
Soil		0,0047 mg/kg

## 8.2. Exposure controls

## Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

## Individual protection measures, such as personal protective equipment

## Eye/face protection

goggles

Face protection umbrella

## Hand protection

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: [vertrieb@kcl.de](mailto:vertrieb@kcl.de) With specification (test according to EN374):

By long-term hand contact

Trade name/designation: KCL 897 Butoject®

Suitable material: Butyl caoutchouc (butyl rubber) 0,3 mm

Wearing time with permanent contact: > 480 min

By short-term hand contact

Trade name/designation: KCL 720 Camapren®

Suitable material: CR (polychloroprene, chloroprene rubber) 0,65 mm

Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

## Skin protection

Take off immediately all contaminated clothing and wash it before reuse.

Wear fire resistant or flame retardant clothing.

Wash hands and face before breaks and after work and take a shower if necessary.

Draw up and observe skin protection programme.

## Respiratory protection

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Filtering device (full mask or mouthpiece) with filter: B-(P2)

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are

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carried out according to the instructions of the producer. These measures have to be properly documented.

#### Environmental exposure controls

Do not allow to enter into surface water or drains.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	colourless
Odour:	stinging
Melting point/freezing point:	-15 °C
Boiling point or initial boiling point and boiling range:	71,78 °C
Flammability:	No data available
Lower explosion limits:	No data available
Upper explosion limits:	No data available
Flash point:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH-Value:	1 (10 g/l)
Viscosity / kinematic:	No data available
Water solubility:	very soluble
Solubility in other solvents	No data available
Partition coefficient n-octanol/water:	log Pow: 0,5
Vapour pressure:	141 hPa
(at 20 °C)	
Vapour pressure:	No data available
Density:	1,48 g/cm³
Bulk density:	No data available
Relative vapour density:	No data available

#### 9.2. Other information

##### Information with regard to physical hazard classes

Explosive properties	No data available
Sustained combustibility:	No data available
Self-ignition temperature	No data available
Solid:	No data available
Gas:	No data available
Oxidizing properties	No data available

##### Other safety characteristics

Evaporation rate:	No data available
Solvent separation test:	No data available
Solvent content:	No data available
Solid content:	No data available
Sublimation point:	No data available
Softening point:	No data available
Pour point:	No data available

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Viscosity / dynamic:  
(at 20 °C)

0,91 mPa·s

Flow time:

No data available

## Further Information

No data available

## SECTION 10: Stability and reactivity

**10.1. Reactivity**

No data available

**10.2. Chemical stability**

Protect against: Heat, Humidity

**10.3. Possibility of hazardous reactions**

Acids

Danger of explosion: lithium aluminum hydride, hydrides

Exothermic reaction with: alkali, Ammonia (NH<sub>3</sub>)**10.4. Conditions to avoid**

Heat

Humidity

**10.5. Incompatible materials**

Metal

Rubber articles

**10.6. Hazardous decomposition products**

in case of fire, see:

SECTION 5: Firefighting measures

## Further information

No data available

## SECTION 11: Toxicological information

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Toxicokinetics, metabolism and distribution**

Avoid exposure - obtain special instructions before use.

**Acute toxicity**

Harmful if inhaled.

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

Pulmonary oedema

Mucous membrane irritation in the mouth, throat, esophagus and gastrointestinal tract.

Inhalation effect: Damage to the respiratory tract.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
76-05-1	trifluoroacetic acid				
	inhalation vapour	ATE 11 mg/l			
	inhalation dust/mist	ATE 1,5 mg/l			

**Irritation and corrosivity**

Skin corrosion/irritation: Causes severe skin burns and eye damage.

Serious eye damage/eye irritation: Causes serious eye damage.

Causes poorly healing wounds.



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**Sensitising effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects 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.

**Specific effects in experiment on an animal**

No data available

**Additional information on tests**

No data available

**Practical experience**

No data available

**11.2. Information on other hazards****Endocrine disrupting properties**

No data available

**Other information**

Irritant

corrosive

Dyspnoea

Cough

Gastrointestinal complaints

Vomiting

Circulatory collapse

Risk of serious damage to eyes.

**Further information**

Causes damage to organs.

(kidneys)

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

Harmful to aquatic life with long lasting effects.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
76-05-1	trifluoroacetic acid					
	Acute fish toxicity	LC50 > 1200 mg/l	96 h	Danio rerio	Study report (1992)	OECD Guideline 203
	Acute algae toxicity	ErC50 237,07 mg/l	72 h	Pseudokirchneriella subcapitata	Study report (2017)	OECD Guideline 201
	Acute crustacea toxicity	EC50 > 1200 mg/l	48 h	Daphnia magna	Study report (1992)	OECD Guideline 202
	Crustacea toxicity	NOEC >= 100 mg/l	21 d	Daphnia magna	Study report (2010)	OECD Guideline 211
	Acute bacteria toxicity	EC50 > 1000 mg/l ( )	3 h	activated sludge, domestic	Study report (2010)	OECD Guideline 209

**12.2. Persistence and degradability**

11 %; 127 d; aerob  
OECD-301A

**12.3. Bioaccumulative potential**

No indication of bioaccumulation potential.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
76-05-1	trifluoroacetic acid	0,5

**12.4. Mobility in soil**

No data available

**12.5. Results of PBT and vPvB assessment**

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

**12.6. Endocrine disrupting properties**

This substance does not have endocrine disrupting properties with respect to non-target organisms.

**12.7. Other adverse effects**

Do not allow to enter into surface water or drains.  
Harmful effect due to pH shift.

**Further information**

Avoid release to the environment.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.  
Send to a physico-chemical treatment facility under observation of official regulations.  
Do not mix with other wastes.

**Contaminated packaging**

Handle contaminated packages in the same way as the substance itself.  
The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

**SECTION 14: Transport information****Land transport (ADR/RID)**

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<b>14.1. UN number or ID number:</b>	UN 2699
<b>14.2. UN proper shipping name:</b>	TRIFLUOROACETIC ACID
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	I
Hazard label:	8
Classification code:	C3
Limited quantity:	0
Excepted quantity:	E0
Transport category:	1
Hazard No:	88
Tunnel restriction code:	E

#### Inland waterways transport (ADN)

<b>14.1. UN number or ID number:</b>	UN 2699
<b>14.2. UN proper shipping name:</b>	TRIFLUOROACETIC ACID
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	I
Hazard label:	8
Classification code:	C3
Limited quantity:	0
Excepted quantity:	E0

#### Marine transport (IMDG)

<b>14.1. UN number or ID number:</b>	UN 2699
<b>14.2. UN proper shipping name:</b>	TRIFLUOROACETIC ACID
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	I
Hazard label:	8
Special Provisions:	-
Limited quantity:	0
Excepted quantity:	E0
EmS:	F-A, S-B

#### Air transport (ICAO-TI/IATA-DGR)

<b>14.1. UN number or ID number:</b>	UN 2699
<b>14.2. UN proper shipping name:</b>	TRIFLUOROACETIC ACID
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	I
Hazard label:	8
Limited quantity Passenger:	Forbidden
Passenger LQ:	Forbidden
Excepted quantity:	E0
IATA-packing instructions - Passenger:	850
IATA-max. quantity - Passenger:	0.5 L
IATA-packing instructions - Cargo:	854
IATA-max. quantity - Cargo:	2.5 L

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS:	No
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### SECTION 15: Regulatory information

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

##### EU regulatory information

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Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

Information according to Directive  
2012/18/EU (SEVESO III):

Not subject to 2012/18/EU (SEVESO III)

**National regulatory information**

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D):

2 - obviously hazardous to water

**SECTION 16: Other information****Changes**

This data sheet contains changes from the previous version in section(s): 11.

**Abbreviations and acronyms**

Acute Tox. 4: Acute toxicity, hazard category 4

Skin Corr. 1A: Skin corrosion, sub-category 1A

Eye Dam. 1: Serious eye damage, hazard category 1

Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard category: Chronic 3

**Relevant H and EUH statements (number and full text)**

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.

**Further Information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

Provide appropriate information, instructions and training to users