

## SAFETY DATA SHEET

Creation Date 26-Sep-2009

Revision Date 25-Dec-2021

Revision Number 3

### 1. Identification

**Product Name** 3,3,3-Trifluoropropionic acid

**Cat No. :** AC381070000; AC381070010; AC381070050; AC381071000

**CAS No** 2516-99-6  
**Synonyms** No information available

**Recommended Use** Laboratory chemicals.  
**Uses advised against** Food, drug, pesticide or biocidal product use.

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

##### Company

Fisher Scientific Company  
One Reagent Lane  
Fair Lawn, NJ 07410  
Tel: (201) 796-7100

Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410

**Emergency Telephone Number** For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11  
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

### 2. Hazard(s) identification

#### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

|                                   |              |
|-----------------------------------|--------------|
| Flammable liquids                 | Category 4   |
| Skin Corrosion/Irritation         | Category 1 B |
| Serious Eye Damage/Eye Irritation | Category 1   |

#### Label Elements

**Signal Word**  
Danger

**Hazard Statements**  
Combustible liquid  
Causes severe skin burns and eye damage

**Precautionary Statements****Prevention**

Do not breathe dust/fume/gas/mist/vapors/spray  
Wash face, hands and any exposed skin thoroughly after handling  
Wear protective gloves/protective clothing/eye protection/face protection  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
Keep container tightly closed  
Ground/bond container and receiving equipment  
Use explosion-proof electrical/ventilating/lighting equipment  
Use only non-sparking tools  
Take precautionary measures against static discharge

**Response**

Immediately call a POISON CENTER or doctor/physician

**Inhalation**

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

**Skin**

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
Wash contaminated clothing before reuse  
Immediately call a POISON CENTER or doctor/physician

**Eyes**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
Immediately call a POISON CENTER or doctor/physician

**Ingestion**

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

**Fire**

In case of fire: Use CO<sub>2</sub>, dry chemical, or foam for extinction  
Fight fire with normal precautions from a reasonable distance

**Storage**

Store locked up  
Store in a well-ventilated place. Keep cool

**Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

None identified

### 3. Composition/Information on Ingredients

| Component                     | CAS No    | Weight % |
|-------------------------------|-----------|----------|
| 3,3,3-Trifluoropropionic acid | 2516-99-6 | 98       |

### 4. First-aid measures

**Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

**Skin Contact**

Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

**Inhalation**

Remove to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth

method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.

**Ingestion**

Do NOT induce vomiting. Call a physician or poison control center immediately.

**Most important symptoms and effects**

Difficulty in breathing. Causes burns by all exposure routes. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

**Notes to Physician**

Treat symptomatically

## 5. Fire-fighting measures

**Suitable Extinguishing Media**

Carbon dioxide (CO<sub>2</sub>). Dry chemical. Chemical foam. Water mist may be used to cool closed containers.

**Unsuitable Extinguishing Media**

No information available

**Flash Point**

92 °C / 197.6 °F

**Method -**

No information available

**Autoignition Temperature**

No information available

**Explosion Limits****Upper**

No data available

**Lower**

No data available

**Sensitivity to Mechanical Impact**

No information available

**Sensitivity to Static Discharge**

No information available

**Specific Hazards Arising from the Chemical**

Combustible material. Containers may explode when heated.

**Hazardous Combustion Products**

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**NFPA**

**Health**  
3

**Flammability**  
2

**Instability**  
0

**Physical hazards**  
N/A

## 6. Accidental release measures

**Personal Precautions**

Ensure adequate ventilation. Use personal protective equipment as required. Remove all sources of ignition. Take precautionary measures against static discharges.

**Environmental Precautions**

Should not be released into the environment.

**Methods for Containment and Clean Up**

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Do not let this chemical enter the environment. Use spark-proof tools and explosion-proof equipment. Remove all sources of ignition.

## 7. Handling and storage

**Handling**

Wear personal protective equipment/face protection. Ensure adequate ventilation. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not ingest. If swallowed then seek immediate medical assistance. Wash

hands before breaks and immediately after handling the product. Remove all sources of ignition. Keep away from open flames, hot surfaces and sources of ignition.

**Storage.**

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Corrosives area. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and flame. Incompatible Materials. Strong oxidizing agents. Strong acids.

## 8. Exposure controls / personal protection

**Exposure Guidelines**

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Engineering Measures**

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. Use spark-proof tools and explosion-proof equipment.

**Personal Protective Equipment****Eye/face Protection**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin and body protection**

Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory Protection**

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

|  |                              |
|--|------------------------------|
| Physical State                         | Liquid                       |
| Appearance                             | Clear                        |
| Odor                                   | No information available     |
| Odor Threshold                         | No information available     |
| pH                                     | No information available     |
| Melting Point/Range                    | 9.7 °C / 49.5 °F             |
| Boiling Point/Range                    | 146 °C / 294.8 °F @ 760 mmHg |
| Flash Point                            | 92 °C / 197.6 °F             |
| Evaporation Rate                       | No information available     |
| Flammability (solid,gas)               | Not applicable               |
| Flammability or explosive limits       |                              |
| Upper                                  | No data available            |
| Lower                                  | No data available            |
| Vapor Pressure                         | No information available     |
| Vapor Density                          | No information available     |
| Specific Gravity                       | 1.450                        |
| Solubility                             | No information available     |
| Partition coefficient; n-octanol/water | No data available            |
| Autoignition Temperature               | No information available     |
| Decomposition Temperature              | No information available     |
| Viscosity                              | No information available     |
| Molecular Formula                      | C3 H3 F3 O2                  |
| Molecular Weight                       | 128.05                       |

## 10. Stability and reactivity

|   |   |
|---|---|
| <b>Reactive Hazard</b>                  | None known, based on information available  |
| <b>Stability</b>                        | Stable under normal conditions.   |
| <b>Conditions to Avoid</b>              | Heat, flames and sparks. Incompatible products. Keep away from open flames, hot surfaces and sources of ignition. |
| <b>Incompatible Materials</b>           | Strong oxidizing agents, Strong acids   |
| <b>Hazardous Decomposition Products</b> | Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> )   |
| <b>Hazardous Polymerization</b>         | No information available.   |
| <b>Hazardous Reactions</b>              | None under normal processing.   |

## 11. Toxicological information

### Acute Toxicity

**Product Information** No acute toxicity information is available for this product

**Component Information**  
**Toxicologically Synergistic Products** No information available

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Irritation** Causes burns by all exposure routes

**Sensitization** No information available

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component                     | CAS No    | IARC       | NTP        | ACGIH      | OSHA       | Mexico     |
|-------------------------------|-----------|------------|------------|------------|------------|------------|
| 3,3,3-Trifluoropropionic acid | 2516-99-6 | Not listed | Not listed | Not listed | Not listed | Not listed |

**Mutagenic Effects** No information available

**Reproductive Effects** No information available.

**Developmental Effects** No information available.

**Teratogenicity** No information available.

**STOT - single exposure** None known

**STOT - repeated exposure** None known

**Aspiration hazard** No information available

**Symptoms / effects, both acute and delayed** Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

**Endocrine Disruptor Information** No information available

**Other Adverse Effects** The toxicological properties have not been fully investigated.

## 12. Ecological information

### Ecotoxicity

Do not empty into drains.

|                                      |                           |
|--------------------------------------|---------------------------|
| <b>Persistence and Degradability</b> | No information available  |
| <b>Bioaccumulation/ Accumulation</b> | No information available. |
| <b>Mobility</b>                      | No information available. |

### 13. Disposal considerations

|                               |   |
|-------------------------------|---|
| <b>Waste Disposal Methods</b> | Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification. |
|-------------------------------|---|

### 14. Transport information

#### DOT

|                             |   |
|-----------------------------|---|
| <b>UN-No</b>                | UN3265                                    |
| <b>Proper Shipping Name</b> | CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. |
| <b>Hazard Class</b>         | 8   |
| <b>Packing Group</b>        | II  |

#### TDG

|                             |   |
|-----------------------------|---|
| <b>UN-No</b>                | UN3265                                    |
| <b>Proper Shipping Name</b> | Corrosive liquid, acidic, organic, n.o.s. |
| <b>Hazard Class</b>         | 8   |
| <b>Packing Group</b>        | II  |

#### IATA

|                             |   |
|-----------------------------|---|
| <b>UN-No</b>                | UN3265                                    |
| <b>Proper Shipping Name</b> | Corrosive liquid, acidic, organic, n.o.s. |
| <b>Hazard Class</b>         | 8   |
| <b>Packing Group</b>        | II  |

#### IMDG/IMO

|                             |   |
|-----------------------------|---|
| <b>UN-No</b>                | UN3265                                    |
| <b>Proper Shipping Name</b> | Corrosive liquid, acidic, organic, n.o.s. |
| <b>Hazard Class</b>         | 8   |
| <b>Packing Group</b>        | II  |

### 15. Regulatory information

#### United States of America Inventory

| Component                     | CAS No    | TSCA | TSCA Inventory notification - Active-Inactive | TSCA - EPA Regulatory Flags |
|-------------------------------|-----------|------|---|-----------------------------|
| 3,3,3-Trifluoropropionic acid | 2516-99-6 | -    | -   | -                           |

#### **Legend:**

**TSCA** US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

**TSCA 12(b)** - Notices of Export Not applicable

#### International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

| Component                     | CAS No    | DSL | NDSL | EINECS | PICCS | ENCS | ISHL | AICS | IECSC | KECL |
|-------------------------------|-----------|-----|------|--------|-------|------|------|------|-------|------|
| 3,3,3-Trifluoropropionic acid | 2516-99-6 | -   | -    | -      | -     | -    | X    | -    | -     | -    |

**KECL** - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

#### U.S. Federal Regulations

|   |   |
|---|---|
| <b>SARA 313</b>   | Not applicable  |
| <b>SARA 311/312 Hazard Categories</b>                       | See section 2 for more information                          |
| <b>CWA (Clean Water Act)</b>                                | Not applicable  |
| <b>Clean Air Act</b>  | Not applicable  |
| <b>OSHA - Occupational Safety and Health Administration</b> | Not applicable  |
| <b>CERCLA</b>   | Not applicable  |
| <b>California Proposition 65</b>                            | This product does not contain any Proposition 65 chemicals. |
| <b>U.S. State Right-to-Know Regulations</b>                 | Not applicable  |

**U.S. Department of Transportation**

|                             |   |
|-----------------------------|---|
| Reportable Quantity (RQ):   | N |
| DOT Marine Pollutant        | N |
| DOT Severe Marine Pollutant | N |

|   |  |
|---|--|
| <b>U.S. Department of Homeland Security</b> | This product does not contain any DHS chemicals. |
|---|--|

**Other International Regulations**

|                       |                          |
|-----------------------|--------------------------|
| <b>Mexico - Grade</b> | No information available |
|-----------------------|--------------------------|

**Authorisation/Restrictions according to EU REACH****Safety, health and environmental regulations/legislation specific for the substance or mixture**

| Component                     | CAS No    | OECD HPV       | Persistent Organic Pollutant | Ozone Depletion Potential | Restriction of Hazardous Substances (RoHS) |
|-------------------------------|-----------|----------------|------------------------------|---------------------------|--|
| 3,3,3-Trifluoropropionic acid | 2516-99-6 | Not applicable | Not applicable               | Not applicable            | Not applicable                             |

| Component                     | CAS No    | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements | Rotterdam Convention (PIC) | Basel Convention (Hazardous Waste) |
|-------------------------------|-----------|---|--|----------------------------|------------------------------------|
| 3,3,3-Trifluoropropionic acid | 2516-99-6 | Not applicable  | Not applicable   | Not applicable             | Not applicable                     |

## 16. Other information

|                         |  |
|-------------------------|--|
| <b>Prepared By</b>      | Regulatory Affairs<br>Thermo Fisher Scientific<br>Email: EMSDS.RA@thermofisher.com   |
| <b>Creation Date</b>    | 26-Sep-2009  |
| <b>Revision Date</b>    | 25-Dec-2021  |
| <b>Print Date</b>       | 25-Dec-2021  |
| <b>Revision Summary</b> | This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally |

Harmonized System of Classification and Labeling of Chemicals (GHS).

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**