

# SAFETY DATA SHEET

Creation Date 22-Jun-2008

Revision Date 19-Dec-2025

Revision Number 7

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200)

## 1. Identification

**Product Name** 4-(Trifluoromethoxy)aniline

**Cat No. :** AC297640000; AC297640025; AC297640250

**CAS No** 461-82-5  
**Synonyms** alpha, alpha, alpha-Trifluoro-p-anisidine

**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: 001-800-227-6701 / **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 according to [US] OSHA (29 CFR 1910.1200, 2024)

|  |            |
|--|------------|
| Flammable liquids                                    | Category 4 |
| Acute oral toxicity                                  | Category 3 |
| Acute dermal toxicity                                | Category 2 |
| Skin Corrosion/Irritation                            | Category 2 |
| Serious Eye Damage/Eye Irritation                    | Category 1 |
| Specific target organ toxicity - (repeated exposure) | Category 2 |
| Target Organs - Lungs.                               |            |

### Label Elements

**Signal Word**  
Danger

**Hazard Statements**

Combustible liquid  
Toxic if swallowed  
Fatal in contact with skin  
Causes skin irritation  
Causes serious eye damage  
May cause damage to organs through prolonged or repeated exposure

**Precautionary Statements****Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Do not get in eyes, on skin, or on clothing  
Wear protective gloves/protective clothing/eye protection/face protection  
Do not breathe dust/fume/gas/mist/vapors/spray  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

**Response**

Get medical attention/advice if you feel unwell

**Skin**

Immediately call a POISON CENTER or doctor  
IF ON SKIN: Wash with plenty of soap and water  
Take off immediately all contaminated clothing  
Take off contaminated clothing and wash before reuse  
If skin irritation occurs: Get medical advice/attention

**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: Immediately call a POISON CENTER or doctor  
Rinse mouth

**Fire**

In case of fire: Use CO<sub>2</sub>, dry chemical, or foam to extinguish

**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

**Hazards classified under paragraph (d)(1)(ii) of 1910.1200**

No information available

### 3. Composition/information on Ingredients

| Component                   | CAS No   | Weight % |
|-----------------------------|----------|----------|
| 4-(Trifluoromethoxy)aniline | 461-82-5 | <=100    |

### 4. First-aid measures

|  |  |
|--|--|
| <b>General Advice</b>                      | Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.  |
| <b>Eye Contact</b>                         | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.   |
| <b>Skin Contact</b>                        | Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.  |
| <b>Inhalation</b>                          | 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. |
| <b>Ingestion</b>                           | Do NOT induce vomiting. Call a physician or poison control center immediately.   |
| <b>Most important symptoms and effects</b> | None reasonably foreseeable. Causes severe eye damage. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting   |
| <b>Notes to Physician</b>                  | Treat symptomatically  |

## 5. Fire-fighting measures

|   |  |
|---|--|
| <b>Suitable Extinguishing Media</b>     | Water spray. Carbon dioxide (CO <sub>2</sub> ). Dry chemical. Chemical foam. Water mist may be used to cool closed containers. |
| <b>Unsuitable Extinguishing Media</b>   | No information available   |
| <b>Flash Point</b>                      | 80 °C / 176 °F   |
| <b>Method -</b>                         | No information available   |
| <b>Autoignition Temperature</b>         | No information available   |
| <b>Explosion Limits</b>                 |  |
| <b>Upper</b>                            | No data available  |
| <b>Lower</b>                            | No data available  |
| <b>Sensitivity to Mechanical Impact</b> | No information available   |
| <b>Sensitivity to Static Discharge</b>  | No information available   |

### Specific Hazards Arising from the Chemical

Combustible material. Flammable. Containers may explode when heated.

### Hazardous Combustion Products

Nitrogen oxides (NO<sub>x</sub>). Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Gaseous hydrogen fluoride (HF).

### 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. Thermal decomposition can lead to release of irritating gases and vapors.

### NFPA

**Health**  
4

**Flammability**  
2

**Instability**  
0

**Physical hazards**  
N/A

## 6. Accidental release measures

|                                  |  |
|----------------------------------|--|
| <b>Personal Precautions</b>      | Ensure adequate ventilation. Use personal protective equipment as required. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Remove all sources of ignition. Take precautionary measures against static discharges. |
| <b>Environmental Precautions</b> | Should not be released into the environment.   |

**Methods for Containment and Clean Up** Keep in suitable, closed containers for disposal. Soak up with inert absorbent material. Remove all sources of ignition.

## 7. Handling and Storage

**Handling** Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance. 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. Keep away from heat, sparks and flame. Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible Materials. Strong oxidizing agents. Strong acids. Strong bases. Strong reducing agents.

## 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.

### 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.

**Recommended Filter type:** Particulates filter conforming to EN 143. Ammonia and organic ammonia derivatives filter. Type K. Green. conforming to EN14387.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

### Appearance

**Physical State**

**Color**

**Odor**

**Odor Threshold**

**Property**

**Melting Point/Range**

**Softening Point**

**Boiling Point/Range**

**Flash Point**

**Flammability (liquid)**

**Flammability (solid,gas)**

**Explosion Limits**

**Autoignition Temperature**

Liquid  
Yellow  
Organic  
No information available  
**Values**  
No data available  
No data available  
83 - 85 °C / 181.4 - 185 °F  
80 °C / 176 °F  
Combustible liquid  
Not applicable  
No data available  
  
No data available

**Remarks**

**• Method**

@ 15 mmHg  
**Method -** No information available  
On basis of test data  
Liquid

|   |  |             |
|---|--|-------------|
| Decomposition Temperature               | No data available                      |             |
| pH                                      | No information available               | 4444        |
| Viscosity                               | No data available                      |             |
| Water Solubility                        | No information available               |             |
| Solubility in other solvents            | No information available               |             |
| Partition Coefficient (n-octanol/water) |  |             |
| Vapor Pressure                          | No data available                      |             |
| Density / Specific Gravity              | 1.310                                  |             |
| Bulk Density                            | Not applicable                         | Liquid      |
| Vapor Density                           | No data available                      | (Air = 1.0) |
| Particle characteristics                | (liquid) Not applicable                |             |
| <b>Other Information</b>                |  |             |
| Molecular Formula                       | C7 H6 F3 N O                           |             |
| Molecular Weight                        | 177.12                                 |             |
| Explosive Properties                    | explosive air/vapour mixtures possible |             |

## 10. Stability and reactivity

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

## 11. Toxicological information

### Information on expected route of exposure

|            |   |
|------------|---|
| Inhalation | Not an expected route of exposure.  |
| Ingestion  | May be harmful if swallowed.  |
| Eyes       | Avoid contact with eyes. Corrosive to the eyes and may cause severe damage including blindness. May cause irritation. |
| Skin       | Avoid contact with skin. Skin Corrosion/Irritation. May cause irritation. Harmful in contact with skin.               |

### Toxicology data for the components

| Component                   | LD50 Oral       | LD50 Dermal     | LC50 Inhalation |
|-----------------------------|-----------------|-----------------|-----------------|
| 4-(Trifluoromethoxy)aniline | 132 mg/kg (Rat) | 105 mg/kg (Rat) | -               |

|                                      |                          |
|--------------------------------------|--------------------------|
| Toxicologically Synergistic Products | No information available |
| (b) skin corrosion/irritation;       | Category 2               |
| (c) serious eye damage/irritation;   | Category 1               |

**(d) respiratory or skin sensitization;**

Respiratory No data available  
Skin No data available

**(e) germ cell mutagenicity;**

No data available  
Not mutagenic in AMES Test

**(f) carcinogenicity;**

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

| Component                   | CAS No   | IARC       | NTP        | ACGIH      | OSHA       | Mexico     |
|-----------------------------|----------|------------|------------|------------|------------|------------|
| 4-(Trifluoromethoxy)aniline | 461-82-5 | Not listed | Not listed | Not listed | Not listed | Not listed |

**(g) reproductive toxicity;**

No data available

**(h) STOT-single exposure;**

No data available

**(i) STOT-repeated exposure;**

Category 2

Route of exposure Inhalation  
Target Organs Lungs.

**(j) aspiration hazard;**

No data available

**Symptoms / effects, both acute and delayed** Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

**Other Adverse Effects**

The toxicological properties have not been fully investigated.

**Endocrine Disrupting Properties**

This product does not contain any known or suspected endocrine disruptors.

## 12. Ecological information

**Ecotoxicity**

Do not empty into drains. .

**Persistence and Degradability**

Persistence is unlikely based on information available.

**Bioaccumulation/ Accumulation**

No information available.

**Mobility**

Will likely be mobile in the environment due to its volatility.

## 13. Disposal considerations

**Waste Disposal Methods**

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**

UN-No UN2810  
Proper Shipping Name TOXIC LIQUIDS, ORGANIC, N.O.S.  
Technical Shipping Name 4-(Trifluoromethoxy)aniline

|                                |                               |
|--------------------------------|-------------------------------|
| <b>Hazard Class</b>            | 6.1                           |
| <b>Packing Group</b>           | II                            |
| <b>TDG</b>                     |                               |
| <b>UN-No</b>                   | UN2810                        |
| <b>Proper Shipping Name</b>    | Toxic liquid, organic, n.o.s. |
| <b>Technical Shipping Name</b> | 4-(Trifluoromethoxy)aniline   |
| <b>Hazard Class</b>            | 6.1                           |
| <b>Packing Group</b>           | II                            |
| <b>IATA</b>                    |                               |
| <b>UN-No</b>                   | UN2810                        |
| <b>Proper Shipping Name</b>    | Toxic liquid, organic, n.o.s. |
| <b>Technical Shipping Name</b> | 4-(Trifluoromethoxy)aniline   |
| <b>Hazard Class</b>            | 6.1                           |
| <b>Packing Group</b>           | II                            |
| <b>IMDG/IMO</b>                |                               |
| <b>UN-No</b>                   | UN2810                        |
| <b>Proper Shipping Name</b>    | Toxic liquid, organic, n.o.s. |
| <b>Technical Shipping Name</b> | 4-(Trifluoromethoxy)aniline   |
| <b>Hazard Class</b>            | 6.1                           |
| <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 |
|-----------------------------|----------|------|---|-----------------------------|
| 4-(Trifluoromethoxy)aniline | 461-82-5 | -    | -   | -                           |

#### Legend:

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

X - Listed

'-' - Not Listed

**TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)**

Not applicable

**TSCA 12(b)** - Notices of Export

Not applicable

### International Inventories

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

| Component                   | CAS No   | DSL | NDL | EINECS    | PICCS | ENCS | ISHL | AICS | IECSC | KECL |
|-----------------------------|----------|-----|-----|-----------|-------|------|------|------|-------|------|
| 4-(Trifluoromethoxy)aniline | 461-82-5 | -   | -   | 207-317-5 | -     | -    |      | -    | -     | -    |

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

### U.S. Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

#### SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**

Not applicable

**Clean Air Act** Not applicable

**OSHA - Occupational Safety and Health Administration** Not applicable

#### CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**California Proposition 65** This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations** Not applicable

#### U.S. Department of Transportation

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

**U.S. Department of Homeland Security** This product does not contain any DHS chemicals.

#### Other International Regulations

**Mexico - Grade** No information available

**Authorisation/Restrictions according to EU REACH** Not applicable

| Component                   | CAS No   | REACH (1907/2006) - Annex XIV - Substances Subject to Authorization | REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances | REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|-----------------------------|----------|---|---|---|
| 4-(Trifluoromethoxy)aniline | 461-82-5 | -   | -   | -   |

#### 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) |
|-----------------------------|----------|----------------|------------------------------|---------------------------|--|
| 4-(Trifluoromethoxy)aniline | 461-82-5 | Not applicable | Not applicable               | Not applicable            | Not applicable                             |

#### Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?

See table for values

| Component                                     | OECD PFAS | US (EPA) PFAS | EU (ECHA) PFAS | UK (HSE) PFAS | Chemsec PFAS (Sin List) |
|---|-----------|---------------|----------------|---------------|-------------------------|
| 4-(Trifluoromethoxy)aniline (CAS #: 461-82-5) | -         | -             | Listed         | Listed        | -                       |

#### PFAS Legend

Listed = Meets the PFAS definition of the named authority

#### Other International Regulations



| 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) |
|-----------------------------|----------|---|--|----------------------------|------------------------------------|
| 4-(Trifluoromethoxy)aniline | 461-82-5 | Not applicable  | Not applicable   | Not applicable             | Not applicable                     |

## 16. Other Information

|                  |   |
|------------------|---|
| Prepared By      | Product stewardship (Regulatory Affairs)<br>Thermo Fisher Scientific<br>email - begel.sdsdesk@thermofisher.com  |
| Creation Date    | 22-Jun-2008   |
| Revision Date    | 19-Dec-2025   |
| Print Date       | 19-Dec-2025   |
| Revision Summary | Updated to the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) which published its Final Rule in the Federal Register revising the Hazard Communication Standard (HCS/HazCom), 29 CFR 1910.1200 (2024) (HCS §1910.1200, 2024), May 20, 2024, effective July 19, 2024. |

### 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**