

SAFETY DATA SHEETS

According to the UN GHS revision 10

Version: 1.1
Creation Date: July 15, 2024
Revision Date: January 17, 2025

SECTION 1: Identification

1.1 GHS Product identifier

Product name Fluoroacetamide

1.2 Other means of identification

Product number CCPD101288
Other names Fluorkill; FLUOROACETAMIDE; 2-fluoroethylamide

1.3 Recommended use of the chemical and restrictions on use

Identified uses For laboratory and Industrial use only.
Uses advised against no data available

1.4 Supplier's details

Company CATO Research Chemicals Inc.
Address 3/F,Building B,No.179 BASIGO, Guangpu Rd East,Huangpu Dist,Guangzhou
Telephone +86-20-81960175

1.5 Emergency phone number

Emergency phone number +86-20-81960175
Service hours 'Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8 hours).

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

Acute toxicity - Category 2, Oral
Acute toxicity - Category 3, Dermal

2.2 GHS label elements, including precautionary statements

Pictogram(s)



Signal word Danger
Hazard statement(s) H300 Fatal if swallowed
H311 Toxic in contact with skin

Precautionary statement(s)

Prevention P264 Wash ... thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...
Response P301+P316 IF SWALLOWED: Get emergency medical help immediately.
P321 Specific treatment (see ... on this label).
P330 Rinse mouth.
P302+P352 IF ON SKIN: Wash with plenty of water/...
P316 Get emergency medical help immediately.
P361+P364 Take off immediately all contaminated clothing and wash it before reuse.
Storage P405 Store locked up.
Disposal P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

2.3 Other hazards which do not result in classification

no data available

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
Fluoroacetamide	2-fluoroacetamide	640-19-7	211-363-1	≈ 99%

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

If inhaled

Fresh air, rest. Artificial respiration may be needed. Refer for medical attention.

Following skin contact

Remove contaminated clothes. Rinse skin with plenty of water or shower. Refer for medical attention .

Following eye contact

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

Following ingestion

Rinse mouth. Induce vomiting (ONLY IN CONSCIOUS PERSONS!). Give a slurry of activated charcoal in water to drink. Refer for medical attention .

4.2 Most important symptoms/effects, acute and delayed

This material is super toxic; probable oral lethal dose in humans is less than 5 mg/kg, or a taste (less than 7 drops) for a 150-lb. person. Chemically inhibits oxygen metabolism by cells with critical damage occurring to the heart, brain, and lungs resulting in heart failure, respiratory arrest, convulsions, and death. (EPA, 1998)

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Removal of the material from gi tract & supportive therapy are only measures that might be beneficial in cases of ingestion of sublethal doses in animals.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

This compound is not very flammable but any fire involving this compound may produce dangerous vapors. You should evacuate the area. All firefighters should wear full-body protective clothing and use self-contained breathing apparatuses. You should extinguish any fires involving this chemical with a dry chemical, carbon dioxide, foam, or halon extinguisher. (NTP, 1992)

5.2 Specific hazards arising from the chemical

Emits very toxic fumes of fluorine containing compounds and nitrogen oxides when heated to decomposition. Avoid decomposing heat. (EPA, 1998)

5.3 Special protective actions for fire-fighters

Use water spray, powder, foam, carbon dioxide.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Remove all ignition sources. Personal protection: chemical protection suit including self-contained breathing apparatus. Do NOT let this chemical enter the environment. Sweep spilled substance into covered containers. Carefully collect remainder.

6.2 Environmental precautions

Remove all ignition sources. Personal protection: chemical protection suit including self-contained breathing apparatus. Do NOT let this chemical enter the environment. Sweep spilled substance into covered containers. Carefully collect remainder.

6.3 Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

NO contact with acids. NO contact with hot surfaces. Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

7.2 Conditions for safe storage, including any incompatibilities

Separated from acids.STORE IN CLOSED CONTAINERS IN CLOSED AREA.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure limit values

no data available

Biological limit values

no data available

8.2 Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Wear face shield or eye protection in combination with breathing protection.

Skin protection

Protective gloves. Protective clothing.

Respiratory protection

Avoid inhalation of dust. Use ventilation, local exhaust or breathing protection.

Thermal hazards

no data available

SECTION 9: Physical and chemical properties and safety characteristics

Physical state	Fluoroacetamide is a colorless crystalline powder. Used as a rodenticide. Highly toxic.
Colour	Colorless crystalline powder
Odour	no data available
Melting point/freezing point	106-108°C(lit.)
Boiling point or initial boiling point and boiling range	259°C at 760 mmHg
Flammability	Gives off irritating or toxic fumes (or gases) in a fire.
Lower and upper explosion limit/flammability limit	no data available
Flash point	110.4°C
Auto-ignition temperature	no data available
Decomposition temperature	no data available
pH	no data available
Kinematic viscosity	no data available
Solubility	Freely sol in water, sol in acetone; sparingly sol in chloroform
Partition coefficient n-octanol/water	log Kow= -1.05
Vapour pressure	no data available
Density and/or relative density	1.136g/cm ³
Relative vapour density	no data available
Particle characteristics	no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Decomposes on heating and under the influence of acids. This produces toxic fumes including nitrogen oxides.

10.2 Chemical stability

no data available

10.3 Possibility of hazardous reactions

FLUOROACETAMIDE is a fluorinated amide. Organic amides/imides react with azo and diazo compounds to generate toxic gases. Flammable gases are formed by the reaction of organic amides/imides with strong reducing agents. Amides are very weak bases (weaker than water). Imides are less basic yet and in fact react with strong bases to form salts. That is, they can react as acids. Mixing amides with dehydrating agents such as P₂O₅ or SOCl₂ generates the corresponding nitrile. The combustion of these compounds generates mixed oxides of nitrogen (NO_x).

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

no data available

10.6 Hazardous decomposition products

When heated to decomposition it emits very toxic fumes of /hydrogen fluoride/ and /nitrogen oxides/.

SECTION 11: Toxicological information

Acute toxicity

- Oral: LD50 Rat oral 4 to 15 mg/kg
- Inhalation: no data available
- Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

STOT-single exposure

The substance may cause effects on the cardiovascular system. This may result in cardiac dysrhythmia and death. The effects may be delayed.

STOT-repeated exposure

Animal tests show that this substance possibly causes toxicity to human reproduction or development.

Aspiration hazard

A harmful concentration of airborne particles can be reached quickly when dispersed.

SECTION 12: Ecological information

12.1 Toxicity

- Toxicity to fish: no data available
- Toxicity to daphnia and other aquatic invertebrates: no data available
- Toxicity to algae: no data available
- Toxicity to microorganisms: no data available

12.2 Persistence and degradability

Fluoroacetamide is reported to be a chemical that should be degradable by biological sewage treatment provided suitable acclimatization can be achieved(1). The persistence of fluoroacetamide was studied in garden soil by determining its toxicity to aphids(2). At a concn of 50 ppm, toxicity had ceased after 11 weeks of incubation and at a conc of 10 ppm, toxicity lasted only 3 weeks(2). In a control soil that had been steam sterilized, toxicity was still evident at both concs after 17 weeks suggesting that the degradation was microbial in nature(2).

12.3 Bioaccumulative potential

An estimated BCF of 3 was calculated for fluoroacetamide(SRC), using a log Kow of -1.05(1) and a regression-derived equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is low(SRC).

12.4 Mobility in soil

The Koc of fluoroacetamide is 6.4(1). According to a classification scheme(2), this Koc value suggests that fluoroacetamide is expected to have very high mobility in soil(SRC).

12.5 Other adverse effects

no data available

SECTION 13: Disposal considerations

13.1 Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

SECTION 14: Transport information

14.1 UN Number

ADR/RID: UN2902 (For reference only, please check.) IMDG: UN2902 (For reference only, please check.) IATA: UN2902 (For reference only, please check.)

14.2 UN Proper Shipping Name

ADR/RID: PESTICIDE, LIQUID, TOXIC, N.O.S. (For reference only, please check.) IMDG: PESTICIDE, LIQUID, TOXIC, N.O.S. (For reference only, please check.) IATA: PESTICIDE, LIQUID, TOXIC, N.O.S. (For reference only, please check.)

14.3 Transport hazard class(es)

ADR/RID: 6.1 (For reference only, please check.) IMDG: 6.1 (For reference only, please check.) IATA: 6.1 (For reference only, please check.)

14.4 Packing group, if applicable

ADR/RID: I (For reference only, please check.) IMDG: I (For reference only, please check.) IATA: I (For reference only, please check.)

14.5 Environmental hazards

ADR/RID: No IMDG: No IATA: No

14.6 Special precautions for user

no data available

14.7 Transport in bulk according to IMO instruments

no data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

Chemical name	Common names and synonyms	CAS number	EC number
2-fluoroacetamide	2-fluoroacetamide	640-19-7	211-363-1
European Inventory of Existing Commercial Chemical Substances (EINECS)			Listed.
EC Inventory			Listed.
United States Toxic Substances Control Act (TSCA) Inventory			Listed.
China Catalog of Hazardous chemicals 2015			Listed.
New Zealand Inventory of Chemicals (NZIoC)			Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Not Listed.
Vietnam National Chemical Inventory			Not Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Not Listed.
Korea Existing Chemicals List (KECL)			Listed.

SECTION 16: Other information

Information on revision

Creation Date July 15, 2024
Revision Date January 17, 2025

Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

References



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- IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>
 - HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>
 - IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>
 - eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en
 - CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>
 - ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>
 - ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>
 - Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>
 - ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

Other Information

Do NOT take working clothes home.

Any questions regarding this SDS, Please send your inquiry to info@cato-chem.com

Disclaimer: 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. We as supplier shall not be held liable for any damage resulting from handling or from contact with the above product.