

According to the UN GHS revision 8

Creation Date: May 08, 2026

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1. IDENTIFICATION

1.1 GHS Product identifier

Product name: Perfluorooctanoic acid

Catalog Number: T9333

CAS Number: 335-67-1

1.2 Other means of identification

Other names: -

1.3 Recommended use of the chemical and restrictions on use

Identified uses: no data available

1.4 Supplier's details

Company: Targetmol Chemicals Inc.

Address: 34 Washington Street, Wellesley Hills, Massachusetts 02481 USA

Tel/Fax: (781) 999-4286

1.5 Emergency phone number

Emergency phone number: 781-999-4286

Service hours: Monday to Friday, 9am-5pm (Standard timezone: UTC/GMT -5 hours).

2. HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

Acute toxicity - Category 4, Oral

Serious eye damage, Category 1

Acute toxicity - Category 4, Inhalation

Carcinogenicity, Category 2

Reproductive toxicity, Additional category for effects on or via lactation

Specific target organ toxicity - repeated exposure, Category 1

Reproductive toxicity, Category 1B

2.2 GHS label elements, including precautionary statements

Pictogram(s):



Signal word:

Danger

Hazard statement(s):

H302 Harmful if swallowed

H318 Causes serious eye damage

H332 Harmful if inhaled

H351 Suspected of causing cancer

H362 May cause harm to breast-fed children

H372 Causes damage to organs through prolonged or repeated exposure

Precautionary statement(s):

P264 Wash ... thoroughly after handling.

Prevention:

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing

protection/...

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P271 Use only outdoors or in a well-ventilated area.

P203 Obtain, read and follow all safety instructions before use.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P263 Avoid contact during pregnancy and while nursing.

P301+P317 IF SWALLOWED: Get medical help.

P330 Rinse mouth.

P305+P354+P338 IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P317 Get medical help.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P318 IF exposed or concerned, get medical advice.

P319 Get medical help if you feel unwell.

Response:

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number
Perfluorooctanoic acid	-	335-67-1	206-397-9

4. FIRST-AID MEASURES

4.1 Description of necessary first-aid measures

General advice

no data available

If inhaled

Fresh air, rest. Refer for medical attention.

Following skin contact

Remove contaminated clothes. Rinse and then wash skin with water and soap.

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. Give one or two glasses of water to drink. Refer for medical attention .

4.2 Most important symptoms/effects, acute and delayed

Immediate first aid: Ensure that adequate decontamination has been carried out. If patient is not breathing, start artificial respiration, preferably with a demand valve resuscitator, bag-valve-mask device, or pocket mask, as trained. Perform CPR if necessary. Immediately flush contaminated eyes with gently flowing water. Do not induce vomiting. If vomiting occurs, lean patient forward or place on the left side (head-down position, if possible) to maintain an open airway and prevent aspiration. Keep patient quiet and maintain normal body temperature. Obtain medical attention. Poisons A and B

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

no data available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Specific hazards arising from the chemical

Not combustible. Gives off irritating or toxic fumes (or gases) in a fire. Risk of fire and explosion on contact with bases, oxidants or reducing agents.

5.3 Special protective actions for fire-fighters

Use water spray, carbon dioxide, dry powder, foam.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Sweep spilled substance into covered non-metallic containers. If appropriate, moisten first to prevent dusting. Carefully collect remainder. Then store and dispose of according to local regulations.

6.2 Environmental precautions

Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Do NOT let this chemical enter the environment. Sweep spilled substance into covered non-metallic containers. If appropriate, moisten first to prevent dusting. Carefully collect remainder. Then store and dispose of according to local regulations.

6.3 Methods and materials for containment and cleaning up

ACCIDENTAL RELEASE MEASURES: Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust; Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains; Methods and materials for containment and cleaning up: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

NO contact with incompatible substances. See Chemical Dangers. 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 strong oxidants, strong bases, strong acids, strong reducing agents and food and feedstuffs. Keep container tightly closed in a dry and well-ventilated place.

Powder: -20°C for 3 years | In solvent: -80°C for 1 year

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure limit values

MAK: (inhalable fraction): 0.005 mg/m³; peak limitation category: II(8); skin absorption (H); carcinogen category: 4; pregnancy risk group: C

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 safety goggles or eye protection in combination with breathing protection if powder.

Skin protection

Protective gloves. Protective clothing.

Respiratory protection

Use local exhaust or breathing protection.

Thermal hazards

no data available

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid
Color	White
Odour	no data available
Melting point/freezing point	56°C(lit.)
Boiling point or initial boiling point and boiling range	189°C/736mmHg(lit.)
Flammability	Not combustible. Gives off irritating or toxic fumes (or gases) in a fire.
Lower and upper explosion limit/flammability limit	no data available
Flash point	122°C(lit.)
Auto-ignition temperature	no data available
Decomposition temperature	no data available
pH	no data available
Kinematic viscosity	no data available
Solubility	DMSO: 240 mg/mL (579.61 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
N-octanol-water partition coefficient	log Kow = 4.81 (est)
Vapour pressure	3.16X10 ⁻² mm Hg at 25 deg C
Density and/or relative density	1.7
Relative vapour density	no data available
Particle characteristics	no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

Decomposes on heating above 300°C . Decomposes on burning. This produces toxic gases including hydrogen fluoride. The solution is a weak acid. Reacts with bases, oxidants and reducing agents. Attacks many metals. This produces flammable/explosive gas (hydrogen - see ICSC 0001).

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data.Decomposes on heating above 300°C . This produces toxic and corrosive gases including hydrogen fluoride (See ICSC 0283). The solution is a weak acid. Reacts with bases, oxidants and reducing agents. This produces flammable/explosive gas (hydrogen - see ICSC 0001). Attacks many metals.

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

Incompatible materials: Bases, Oxidizing agents, Reducing agents

10.6 Hazardous decomposition products

When heated to decomposition it emits toxic vapors of /flourine/.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral: no data available
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 is irritating to the eyes, skin and respiratory tract.

STOT-repeated exposure

The substance may have effects on the liver and immune system. This substance is possibly carcinogenic to humans. May cause toxicity to human reproduction or development.

Aspiration hazard

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

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish: no data available

Toxicity to daphnia and other aquatic invertebrates: EC50; Species: *Daphnia magna* (Water Flea) age <24 hr neonate; Conditions: freshwater, static, 20 deg C; Concentration: 0.531 mM for 24 hr (95% confidence interval: 0.506-0.555 mM); Effect: intoxication, immobilization /96% purity

Toxicity to algae: EC50; Species: *Pseudokirchneriella subcapitata* (Green Algae) 3000000 cells/mL; Conditions: freshwater, static;

Concentration: 1.807 mM for 4.5 hr (95% confidence interval: 1.76-1.86 mM); Effect: population, decreased photosynthesis /96% purity

Toxicity to microorganisms: no data available

12.2 Persistence and degradability

AEROBIC: Perfluorooctanoic acid, present at 100 mg/L, reached 5% of its theoretical BOD in 4 weeks using an activated sludge inoculum at 30 mg/L in the Japanese MITI test(1). Organic fluorochemical compounds, such as perfluorooctanoic acid, are expected to be resistant to biodegradation(2). A related compound, perfluorooctane sulfonic acid, was found to not degrade under aerobic or anaerobic conditions (3).

12.3 Bioaccumulative potential

BCF values of 3.1 and 9.4 were measured in fish using carp (*Cyprinus carpio*) which were exposed to 5 and 50 ug/L, respectively, perfluorooctanoic acid over a 4-week period(1). According to a classification scheme(2), these BCF values suggest that bioconcentration in aquatic organisms is low(SRC). Perfluorinated carboxylates with seven carbons or less may have low biomagnification potential in the food chain(3). The bioconcentration factors of perfluorooctanoic acid in wild turtles (*Trachemys scriptaelegans* and *Chinemys reevesii*) from the Ai River, Japan ranged from 0.8 to 15.8 (serum/water concentrations)(4).

12.4 Mobility in soil

The log Koc of perfluorooctanoic acid was reported as 1.92-2.59 measured in three soils(1). According to a classification scheme(2), these log Koc values suggest that perfluorooctanoic acid is expected to have high to moderate mobility in soil. Based on a variety of conditions,

A DRUG SCREENING EXPERT

pKa values of perfluorooctanoic acid have been reported as -0.5 to 4.2(3), indicating that this compound will exist entirely in anion form and anions generally do not adsorb more strongly to soils containing organic carbon and clay than their neutral counterparts(4). The log Koc and log Kd in sediment samples collected from Etobicoke Creek, Canada were reported as 0.88-1.85 and 0.16-1.44, respectively(5). The log Kd in 19 sediment samples collected from major rivers, lakes and canals in The Netherlands, May to Aug 2007 was 1.19-2.85(6). The log Koc and log Kd were reported as 2.6-4.2 and 1.3-2.8, respectively, in 32 sediment samples collected along the Haihe River, China; samples were collected April to May 2010(7). The average and median values for log Koc in 17 sediments were both 2.1(8).

12.5 Other adverse effects

no data available

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.

14. TRANSPORT INFORMATION

14.1 UN Number

no data available

14.2 UN Proper Shipping Name

no data available

14.3 Transport hazard class(es)

no data available

14.4 Packing group, if applicable

no data available

14.5 Environmental hazards

no data available

14.6 Special precautions for user

no data available

14.7 Transport in bulk according to IMO instruments

no data available

15. REGULATORY INFORMATION

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

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	Not Listed.
New Zealand Inventory of Chemicals (NZIoC)	Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Listed.
Vietnam National Chemical Inventory	Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)	Listed.

Korea Existing Chemicals List (KECL)

Listed.

16. OTHER INFORMATION**Information on revision****Creation Date** May 08, 2026**Revision Date** May 08, 2026**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%

ReferencesIPCS - 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=enCAMEO 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**

no data available

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