



Material Safety Data Sheet

FC14-08 Perfluorooctyl Bromide

Revised 27-October-2011

1. PRODUCT AND COMPANY IDENTIFICATION

Chemical names:	Perfluorooctyl bromide
Product number:	FC14-08
Company	Fluoryx, Inc. 1933 Davis St., Suite 293 San Leandro, CA 94577 USA
Telephone	+1-510-582-9365
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Emergency call:	+1-510-329-2811 +86-1346-4812437

2. HAZARDS IDENTIFICATION

Emergency Overview:

OSHA Hazards
Irritant

GHS Label elements, including precautionary statements
Pictogram



Signal word
Hazard statement(s)
H315
H319
H335
Precautionary statement(s)
P261
P264
P271
P280

P302 + P352
P304 + P340

P305 + P351 + P338

Warning

Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.

Avoid breathing dust/fume/gas/mist/vapours/spray.
Wash skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/eye protection/face protection.
IF ON SKIN: Wash with plenty of soap and water.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P321	Specific treatment (see supplemental first aid instructions on this label).
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P362	Take off contaminated clothing and wash before reuse.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container to an approved waste disposal plant.

HMIS Classification

Health hazard: 2
 Flammability: 0
 Physical hazards: 0

NFPA Rating

Health hazard: 2
 Fire: 0
 Reactivity Hazard: 0

Potential Health Effects

Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Skin	May be harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation.
Ingestion	May be harmful if swallowed..

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Synonyms Long's Compound
 1-Bromo-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluorooctane
 Heptafluorooctyl bromide

Chemical formula: CF₃CF₂CF₂CF₂CF₂CF₂CF₂CF₂Br
 C₈BrF₁₇

Molecular weight: 498.96 g/mol

Material	CAS #	TSCA Listed	EINECS #
Perfluorooctyl bromide	423-55-2	No	207-028-4

4. FIRST AID MEASURES

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If swallowed: If swallowed, wash out mouth with water provided person is conscious. Call a physician.

If inhaled: Remove from exposure area and lie down. If breathing is difficult give oxygen. Never give anything by mouth to an unconscious person. If a person vomits when lying on his back, place him in

the side recovery position. When symptoms persist, or in all cases of doubt, seek medical advice. If not breathing, give artificial respiration.

In case of eye contact:

Flush with copious amounts of water for at least 15 minutes. If irritation persists, seek medical attention.

In case of skin contact:

Remove contaminated clothing. Wash affected area with soap and water. Rinse thoroughly. If irritation persists or other symptoms are observed, seek medical advice.

5. FIRE FIGHTING MEASURES

Flash Point:

None

Firefighting

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific Hazard(s): Emits toxic fumes under fire conditions.

Suitable Extinguishing Medium:

Water spray, alcohol-resistant foam, carbon dioxide, or dry chemical powder.

Hazardous Products of Combustion May Include:

Carbon monoxide, carbon dioxide, hydrogen fluoride (hydrofluoric acid), hydrogen bromide (hydrobromic acid).

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

Environmental Precautions:

Take precautions to ensure product does not contaminate the ground or enter the drainage system.

Spill Clean-Up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling:

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Normal measures for preventive fire protection.

Conditions for Safe Storage:

Store in tightly sealed containers in a cool, well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Engineering Controls

Safety shower and eye bath. Mechanical exhaust required.

Personal Protective Equipment

Respiratory:

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.

Hand:

Compatible chemical-resistant gloves.

Eye:

Safety glasses with side-shields conforming to EN166.

Skin and body protection:

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form

Clear, liquid

Color

Water white to light yellow

Safety Data

Boiling Point

144 °C at 760 mm Hg

Melting Point

-23 °C

pH

No data available

Flash Point

> 110 °C (closed cup)

Ignition temperature

No data available

Lower explosion limit

No data available

Upper explosion limit

No data available

Density

1.862 g/mL @ 25 °C

Refractive Index

1.296 @ 25 °C

Solubility in Water

Negligible

10. STABILITY AND REACTIVITY

Chemical Stability

Stable under recommended storage conditions

Conditions to Avoid:

Processing temperature > 200 °C

Materials to Avoid:

Strong oxidizing agents

Hazardous Reactions:

Hazardous decomposition products formed under fire conditions. - carbon oxides, hydrogen bromide gas, hydrogen fluoride

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Inhalation: no data available

LD50 Intravenous - mouse -14,720 mg/kg

Skin corrosion/irritation	no data available
Serious eye damage/eye irritation	no data available
Respiratory or skin sensitization	no data available
Germ cell mutagenicity	no data available
Carcinogenicity	
IARC:	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP:	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity	no data available
Specific target organ toxicity - single exposure (GHS)	Inhalation - May cause respiratory irritation.
Specific target organ toxicity - repeated exposure (GHS)	no data available
Aspiration hazard	no data available
Potential health effects	
Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion	May be harmful if swallowed.
Skin	May be harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation.
Signs and Symptoms of Exposure	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Additional Information	RTECS: RG8700000

12. ECOLOGICAL EFFECT

Toxicity	no data available
Persistence and degradability	no data available
Bioaccumulative potential	no data available
Mobility in soil	no data available
PBT and vPvB assessment	no data available
Other adverse effects	no data available

13. DISPOSAL CONSIDERATIONS

Product	Observe all federal, state, and local environmental regulations. Contact a licensed professional waste
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Contaminated packaging disposal service to dispose of this material.
Dispose of as unused product.

14. TRANSPORTATION INFORMATION

DOT (US)	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

15. REGULATORY INFORMATION

OSHA Hazards	Irritant
DSL Status	This product contains the following components that are not on the Canadian DSL nor NDSL lists: 1-Bromoheptadecafluorooctane CAS-No. 423-55-2
SARA 302 Components	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
SARA 311/312 Hazards	Acute Health Hazard
Massachusetts Right To Know Components	No components are subject to the Massachusetts Right to Know Act.
Pennsylvania Right To Know Components	1-Bromoheptadecafluorooctane CAS-No. 423-55-2
New Jersey Right To Know Components	1-Bromoheptadecafluorooctane CAS-No. 423-55-2
California Prop. 65 Components	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Legal Disclaimer:	For R&D use only. Not for drug, household, or other uses. The previous information is based upon our current knowledge and experience of our product and is not exhaustive. It applies to the product as defined by the specifications. In case of combinations or mixtures, one must confirm that no new hazards are likely to exist. In any case, the user is not exempt from observing all legal, administrative and regulatory procedures relating to the product, personal hygiene, and integrity of the work environment. Unless noted to the contrary, the technical information applies only to pure product. To our actual knowledge, the information contained
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End of MSDS