

FC15-04

2-(Perfluorobutyl)ethyl Bromide

Revised 18-November-2016

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name	2-(Perfluorobutyl)ethyl bromide
Catalog Number	FC15-04
Brand	Fluoryx Labs
CAS Number	38436-14-5

Relevant identified uses of the Substance or mixture and uses advised against

Identified uses:	Laboratory chemicals. Manufacture of substances
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Details of the supplier of the safety data sheet

Company	Fluoryx Labs 3650 Research Way, #22 Carson City, NV 89706 USA +1 (510) 329-9149 (Telephone) +1 (510) 686-8799 (Fax) www.fluoryx.com
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Emergency call:

+01-813-248-0585 (International)
+1-800-255-3924 (USA)

2. HAZARDS INFORMATION

Classification of the substance or mixture**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

Skin irritation (Category 2), H315
 Eye irritation (Category 2A), H319
 Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335
 For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS Label elements, including precautionary statements

Pictogram



Signal word	Warning
Hazard statement(s)	Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.
H315	
H319	
H335	
Precautionary statement(s)	Avoid breathing dust/fume/gas/mist/vapors/spray.
P261	

P264	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/eye protection/face protection.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	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.

Hazards not otherwise classified (HNOC) or not covered by GHS – none

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Synonyms	1 <i>H</i> ,1 <i>H</i> ,2 <i>H</i> ,2 <i>H</i> -Perfluorohexyl bromide; Tridecafluorohexyl bromide; 1-Bromo-1 <i>H</i> ,1 <i>H</i> ,2 <i>H</i> ,2 <i>H</i> -3,3,4,4,5,5,6,6,6 –nonafluorohexane; 1-Bromo-3,3,4,4,5,5,6,6,6-nonafluorohexane; 3,3,4,4,5,5,6,6,6-Nonafluorohexyl bromide; 6-Bromo-1,1,1,2,2,3,3,4,4-nonafluorohexane
Molecular Weight	598.98 g/mole
CAS Number	38436-14-5
EC Number	None

Hazardous components

Material	Classification	Concentration
2-(Perfluorobutyl)ethyl bromide	Skin Irrit. 2; Eye Irrit. 2A; STOT SE 3; H315, H319, H335	≤100%

4. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash off with soap and plenty of water. Consult a physician.
In case of eye contact	Flush eyes with water as a precaution. Consult a physician.
If swallowed	Never give anything by mouth to an unconscious

person. Rinse mouth with water. Consult a physician.

5. FIREFIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special protective equipment for firefighters	Wear self-contained breathing apparatus for fire fighting.
Hazardous combustion products	Hazardous decomposition products formed under fire conditions - carbon oxides, hydrogen fluoride, hydrogen bromide.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment. Avoid inhalation of vapor, mist, dust, or gas. Ensure adequate ventilation. Vapors can accumulate in low areas. Evacuate personnel to safe areas.
Environmental precautions	Do not let product enter drains. Discharge into the environment must be avoided.
Methods for cleaning 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 vapor or mist. Normal measures for preventive fire protection.
Conditions for Safe Storage	Keep container tightly closed in a dry and well-ventilated place.

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 protection	Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type AXBEK (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. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Hand protection	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Eye protection	Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and

Skin and body protection

approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Impervious clothing, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

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

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form Clear liquid
Color Colorless

Safety Data

pH No data available
Melting Point/Freezing Point -51 °C
Boiling Point 128 °C @ 760 mm Hg
Flash Point > 95 °C (closed cup)
Ignition Temperature No data available
Auto-ignition Temperature No data available
Lower Explosion Limit No data available
Upper Explosion Limit No data available
Thermal Decomposition Temperature No data available
Vapor Pressure No data available
Density 1.72 g/mL @ 25 °C
Water Solubility Negligible
Partition Coefficient (*n*-octanol/water) No data available
Relative Vapor Density (Air = 1) > 1
Odor No data available
Odor Threshold No data available
Evaporation Rate No data available
Viscosity No data available

10. STABILITY AND REACTIVITY

Storage stability Stable under recommended storage conditions.
Possibility of hazardous reactions Polymerization will not occur.
Conditions to avoid Keep away from open flames and heated surfaces above 200 °C (392 °F). Protect from light.
Materials to avoid Strong oxidizing agents.
Hazardous decomposition products Hazardous decomposition products formed under fire conditions - carbon oxides, hydrogen fluoride, hydrogen bromide, carbonyl fluoride.

11. TOXICOLOGICAL INFORMATION**Acute toxicity**

Oral LD50 No data available

Inhalation LC50	No data available
Dermal LD50	No data available
Other information on acute toxicity	No data available
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 (Globally Harmonized System)	
Single exposure	Eye - causes eye irritation.
Repeated exposure	No data available
Aspiration Hazard	No data available
Potential Health Effects	
Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Skin	May be harmful if absorbed through skin. May cause skin irritation.
Eyes	Causes eyes irritation.
Ingestion	May be harmful if swallowed.
Synergistic Effects	No data available
Additional Information	RTECS: not available
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.	

12. ECOLOGICAL INFORMATION

Toxicity	No data available
Persistence and Degradability	Does not readily degrade
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	Offer non-recyclable solutions to a licensed disposal
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company. Contact Fluoryx to return unused product.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORTATION INFORMATION

DOT (US) Not dangerous goods

IMDG Not dangerous goods

IATA Not dangerous goods

15. REGULATORY INFORMATION

TSCA Status Not listed on the inventory.

DSL Status This product does not contain components listed on the Canadian NDSL list.

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 No SARA hazards.

Massachusetts Right To Know Components No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components No components are subject to the Pennsylvania Right to Know Act.

New Jersey Right To Know Components No components are subject to the New Jersey Right to Know Act.

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**Full text of H-Statements referred to under sections 2 and 3.**

Eye Irrit.	Eye irritation
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
Skin Irrit.	Skin irritation
STOT SE	Specific target organ toxicity - single exposure

HMIS Classification

Health Hazard:	1
Flammability:	0
Physical hazards:	0

NFPA Rating

Health Hazard:	1
Fire:	0
Reactivity Hazard:	0

Further information:

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.

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End of SDS