

## FC14-04

## Perfluorobutyl Bromide

Revised 24-April-2023

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**1. PRODUCT AND COMPANY IDENTIFICATION**


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**Product Identifier**

Product Name	Perfluorobutyl bromide
Catalog Number	FC14-06
Brand	Fluoryx Labs
CAS no.	375-48-4

**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	<b>Fluoryx Labs</b> 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 (VelocityEHS):**

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

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**2. HAZARDS INFORMATION**


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

Skin irritation (Category 2)
Eye irritation (Category 2A)
Specific target organ toxicity - single exposure (Category 3) respiratory irritation

**GHS Label elements, including precautionary statements**

Pictogram	
Signal word	

Warning

**Hazard statement(s)**

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

**Precautionary statement(s)**

P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash skin thoroughly after handling

P271	Use only outdoors or in a well-ventilated area
P280	Wear protective gloves/protective clothing/eye protection/face protection
P302+P352	If on skin: Wash with plenty of soap and water
P304+P340	If inhaled: Remove person to fresh air and keep 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+P364 -	Take off contaminated clothing and wash it 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

### 3. COMPOSITION AND INFORMATION ON INGREDIENTS

<b>Synonyms</b>	Bromononafluorobutane 1-Bromoperfluorobutane 1-Bromononafluorobutane Nonafluorobutyl bromide Nonafluoro-1-bromobutane Perfluoro-n-butyl bromide 1-Bromo-1,1,2,2,3,3,4,4,4-nonafluorobutane Butane,1-bromo-1,1,2,2,3,3,4,4,4-nonafluoro-
<b>Chemical formula</b>	C <sub>4</sub> BrF <sub>9</sub> CF <sub>3</sub> CF <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> Br
<b>Molecular weight</b>	298.93
<b>CAS no.</b>	375-48-4
<b>EC no.</b>	No data available

Name	Product identifier	%	Classification (GHS-US)
1-Bromononafluorobutane (Main constituent)	(CAS No) 375-48-4	<= 100	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335

No components need to be disclosed according to the applicable regulations.

### 4. FIRST AID MEASURES

<b>General advice</b>	Consult a physician. Show this safety data sheet to the doctor in attendance.
<b>If inhaled</b>	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
<b>In case of skin contact</b>	Wash off with soap and plenty of water. Consult a physician.

<b>In case of eye contact</b>	Flush eyes with water as a precaution. Consult a physician.
<b>If swallowed</b>	Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth with water. Consult a physician.

**5. FIREFIGHTING MEASURES**

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

**6. ACCIDENTAL RELEASE MEASURES**

<b>Personal precautions</b>	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.
<b>Environmental precautions</b>	Do not let product enter drains. Discharge into the environment must be avoided.
<b>Methods for cleaning up</b>	Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

**7. HANDLING AND STORAGE**

<b>Precautions for Safe Handling</b>	Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Normal measures for preventive fire protection.
<b>Conditions for Safe Storage</b>	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.

**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

**Skin and body protection**

EN166. Use equipment for eye protection tested and 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.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**


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**Appearance**

Form	Clear liquid
Color	Colorless

**Safety Data**

pH	No data available
Melting Point/Freezing Point	No data available
Boiling Point	43 - 44 °C @ 760 mm Hg
Flash Point	None (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	1.90 g/mL @ 20 °C
Water Solubility	Negligible
Partition Coefficient ( <i>n</i> -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

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**10. STABILITY AND REACTIVITY**


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

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**11. TOXICOLOGICAL INFORMATION**


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<b>Acute toxicity</b> Oral LD50	No data available
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Inhalation LC50  
 Dermal LD50  
 Other information on acute toxicity

No data available  
 No data available  
 No data available

**Skin corrosion/irritation**

Causes skin irritation.

**Serious eye damage/eye irritation**

Causes serious eye irritation.

**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

Inhalation - may cause respiratory irritation.

Repeated exposure

No data available

**Aspiration Hazard**

No data available

**Synergistic Effects**

No data available

**Additional Information**

RTECS: not available

**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 company. Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber. 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**

<b>TSCA Status</b>	Not listed on the inventory.
<b>DSL Status</b>	This product does not contain components listed on the Canadian NDSL list.
<b>SARA 302 Components</b>	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
<b>SARA 313 Components</b>	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.
<b>SARA 311/312 Hazards</b>	No SARA hazards.
<b>California Prop. 65 Components</b>	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**

<b>Eye Irrit. 2A</b>	Serious eye damage/eye irritation Category 2A
<b>Skin Irrit. 2</b>	
<b>STOT SE 3</b>	
<b>H315</b>	Skin corrosion/irritation Category 2 Specific target organ toxicity (single exposure) Category 3 Causes skin irritation Causes serious eye irritation May cause respiratory irritation
<b>H319</b>	
<b>H335</b>	
<b>HMIS Classification</b>	
Health Hazard:	2
Flammability:	0
Physical hazards:	0
<b>NFPA Rating</b>	
Health Hazard:	3
Fire:	0
Reactivity Hazard:	0
<b>Further information:</b>	<p>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.</p> <p>To our actual knowledge, the information contained herein is accurate as of the date of this document. However, neither Fluoryx, nor any of its affiliates makes any warranty, express or implied, or accepts any liability in connection with this information or its use. This information is for use by technically skilled</p>

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End of SDS