

## FC03-N

## 2-(Perfluoroalkyl)ethyl iodides, mixture

Revised 19-November-2016

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**1. PRODUCT AND COMPANY IDENTIFICATION**


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**Product Identifier**

Product Name	2-(Perfluoroalkyl)ethyl iodides, mixture of chain lengths
Catalog Number	FC03-N
Brand	Fluoryx Labs
CAS Number	68188-12-5

**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	<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:**

+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), H315  
 Eye irritation (Category 2A), H319  
 Specific target organ toxicity – single exposure (Category 3), Respiratory system, H335

**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/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

<b>Synonyms</b>	1H,1H,2H,2H-Perfluoroalkyl iodides; 1H,1H,2H,2H-Perfluoroalkyl-1-iodides
<b>Formula</b>	$C_nH_4F_{2n+1}I$ ; n=8 (~60%); n=10,12,14,16... (sum ~40%) $CF_3(CF_2)_nCH_2CH_2I$
<b>Molecular weight</b>	~600 (average)
<b>CAS number</b>	68188-12-5
<b>EC number</b>	269-141-5

#### Hazardous Components

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

For the full text of the H-Statements mentioned in this Section, see Section 16.

### 4. FIRST AID MEASURES

<b>General advice</b>	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
<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>	Rinse thoroughly with plenty of water for at least 15

minutes and consult a physician.

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Most important symptoms and effects, both acute and delayed** - The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

**Indication of any immediate medical attention and special treatment needed** - no data available

**5. FIREFIGHTING MEASURES**

**Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special hazards arising from the substance**

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

**Advice for firefighters**

Wear self-contained breathing apparatus for fire fighting.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions**

Use personal protective equipment. Avoid inhalation of vapour, mist, dust, or gas. Ensure adequate ventilation. Vapours can accumulate in low areas. Evacuate personnel to safe areas.

**Environmental precautions**

Do not let product enter drains.

**Methods for 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**

**Precautions for Safe Handling**

Avoid contact with skin and eyes. Avoid formation of mist or respirable particles. Provide appropriate exhaust ventilation at places where dust, mist or vapors are formed. Normal measures for preventive fire protection.

**Conditions for Safe Storage**

Store in dry and cool place. Light sensitive. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

**8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**

**Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

**Appropriate engineering controls**

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

**Personal protective equipment**

**Eye/face protection**

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin 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.

**Full contact**

Material: Nitrile rubber  
 Minimum layer thickness: 0.11 mm  
 Break through time: 480 min  
 Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

**Splash contact**

Material: Nitrile rubber  
 Minimum layer thickness: 0.11 mm  
 Break through time: 480 min  
 Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

**Body Protection**

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

**Respiratory protection**

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure**

Do not let product enter drains.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**


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**Appearance**

Form	Solid, wax
Color	White, turns pink on exposure to light

**Safety Data**

pH	No data available
Melting Point/Freezing Point	48 - 53 °C
Boiling Point	130 - 270 °C @ 760 mm Hg
Flash Point	> 100 °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	1.8 g/mL
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
Oxidizing Properties	No data available

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## 10. STABILITY AND REACTIVITY

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<b>Reactivity</b>	No data available
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Possibility of hazardous reactions</b>	Polymerization will not occur. No other data available.
<b>Conditions to avoid</b>	Keep away from open flames and heated surfaces above 200 °C (392 °F). Sensitive to light and oxygen.
<b>Incompatible materials</b>	Strong oxidizing agents. Strong bases. Phosphorus, aluminum, potassium, magnesium. Sodium/sodium oxides.
<b>Hazardous decomposition products</b>	Hazardous decomposition products formed under fire conditions - carbon oxides, hydrogen fluoride, hydrogen iodide. Decomposes when exposed to UV light.

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## 11. TOXICOLOGICAL INFORMATION

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<b>Acute toxicity</b>	No data available.
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Oral LD50	No data available
Inhalation LC50	No data available
Dermal LD50	No data available
Other information on acute toxicity	No data available
<b>Skin corrosion/irritation</b>	No data available
<b>Serious eye damage/eye irritation</b>	No data available
<b>Respiratory or skin sensitization</b>	No data available
<b>Germ cell mutagenicity</b>	No data available
<b>Carcinogenicity</b>	
<b>IARC</b>	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.
<b>ACGIH</b>	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.

<b>NTP</b>	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.
<b>OSHA</b>	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.
<b>Reproductive toxicity</b>	No data available
<b>Teratogenicity</b>	No data available
<b>Specific target organ toxicity - single exposure (Globally Harmonized System)</b> Inhalation – may cause respiratory irritation	
<b>Specific target organ toxicity - repeated exposure (Globally Harmonized System)</b> No data available	
<b>Aspiration hazard</b>	No data available
<b>Signs and Symptoms of Exposure:</b>	No data available
<b>Synergistic effects</b>	No data available
<b>Additional Information</b> RTECS:	Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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**12. ECOLOGICAL INFORMATION**

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<b>Toxicity</b>	No data available
<b>Persistence and Degradability</b>	Does not readily degrade.
<b>Bioaccumulative Potential</b>	No data available
<b>Mobility in Soil</b>	No data available
<b>PBT and vPvB Assessment</b>	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
<b>Other adverse effects</b>	No data available

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**13. DISPOSAL CONSIDERATIONS**

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<b>Product</b>	Offer non-recyclable solutions to a licensed disposal company. Contact Fluoryx to return unused product.
<b>Contaminated packaging</b>	Dispose of as unused product.

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**14. TRANSPORTATION INFORMATION**

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<b>DOT (US)</b>	Not dangerous goods
<b>IMDG</b>	Not dangerous goods
<b>IATA</b>	Not dangerous goods

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**15. REGULATORY INFORMATION**

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<b>OSHA Hazards</b>	Irritant
<b>TSCA Status</b>	On the inventory or in compliance with the inventory.
<b>DSL Status</b>	This product contains the following components listed on the Canadian NDSL list: Alkyl iodides, C4-20, $\gamma$ - $\omega$ -perfluoro CAS-No. 68188-12-5

<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>	Acute health hazard
<b>Massachusetts Right To Know Components</b>	No components are subject to the Massachusetts Right to Know Act.
<b>Pennsylvania Right To Know Components</b>	Alkyl iodides, C4-20, γ-ω-perfluoro CAS-No. 68188-12-5
<b>New Jersey Right To Know Components</b>	Alkyl iodides, C4-20, γ-ω-perfluoro CAS-No. 68188-12-5
<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**

**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:	2
Flammability:	0
Physical hazards:	0

**NFPA Rating**

Health Hazard:	2
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