

## FC06-PFTBA

## Perfluorotributylamine

Revised 21-Mar-2023

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 1. PRODUCT AND COMPANY IDENTIFICATION
 

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<b>Product Name</b>	Perfluorotributylamine
<b>Catalog Number</b>	FC06-PFTBA
<b>CAS Number</b>	311-89-7
<b>Supplier</b>	<b>Fluoryx Labs</b> 3650 Research Way, #22 Carson City, NV 89706 USA
<b>Uses</b>	Laboratory chemical
<b>Emergency call (VelocityEHS):</b>	+01-813-248-0585 (International) +1-800-255-3924 (USA)

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 2. HAZARDS INFORMATION
 

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## Emergency Overview

<b>OSHA Hazards</b>	Not classified as hazardous according to Occupational Safety and Health (Chemical Classification, Labelling and Safety Data Sheets) Regulations 2013.
<b>GHS Classification</b>	None
<b>GHS Label elements, including precautionary statements</b>	
Pictogram	None
Signal word	None
<b>Hazard statement(s)</b>	None
<b>Precautionary statement(s)</b>	None

**Hazards not otherwise classified (HNOC) or not covered by GHS**

None.

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 3. COMPOSITION AND INFORMATION ON INGREDIENTS
 

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<b>Synonyms</b>	PFTBA Fluorinert® FC-43 Tris(nonafluorobutyl)amine Heptacosafuorotributylamine 1-Butanamine, 1, 1, 2, 2, 3, 3, 4, 4, 4-nonafluoro-N, N-bis(1, 1, 2, 2, 3, 3, 4, 4, 4-nonafluorobutyl)- Tris(perfluorobutyl)amine Tri(perfluorobutyl)amine
<b>Chemical formula</b>	(CF <sub>3</sub> CF <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> ) <sub>3</sub> N

C<sub>12</sub>F<sub>27</sub>N

<b>Molecular weight</b>	671.09 g/mol
<b>CAS number</b>	311-89-7
<b>EC number</b>	206-223-1
<b>TSCA status</b>	Listed

**Components**

Material	Classification	Concentration
Perfluorotributylamine	None	≤ 100%

**4. FIRST AID MEASURES**

<b>If inhaled</b>	If breathed in, move person into fresh air. If not breathing, give artificial respiration.
<b>In case of skin contact</b>	Wash off with soap and plenty of water.
<b>In case of eye contact</b>	Flush eyes with water as a precaution.
<b>If swallowed</b>	Rinse mouth. If you feel unwell, get medical attention.

**Indication of any immediate medical attention and special treatment required - Not applicable**

**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>	When firefighting conditions are severe and total thermal decomposition of the product is possible, wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, tunic and trousers (leggings), bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.
<b>Hazardous combustion products</b>	Exposure to extreme heat can give rise to thermal decomposition. Hazardous decomposition products formed under fire conditions – nitrogen oxides, carbon oxides, hydrogen fluoride.

**6. ACCIDENTAL RELEASE MEASURES**

<b>Personal precautions</b>	Avoid breathing vapors, mist or gas. Evacuate area. Ventilate the area with fresh air. Observe precautions from other sections.
<b>Environmental precautions</b>	Do not let product enter environment.
<b>Methods for cleaning up</b>	Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area

with fresh air. Read and follow safety precautions on the label and SDS. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

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## 7. HANDLING AND STORAGE

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### Precautions for Safe Handling

Avoid inhalation of thermal decomposition products. Avoid skin contact with hot material. For industrial/occupational use only. Not for consumer sale or use. Store work clothes separately from other clothing, food and tobacco products. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. No smoking: Smoking while using this product can result in contamination of the tobacco and/or smoke and lead to the formation of hazardous decomposition products.

### Conditions for Safe Storage

Store in a well-ventilated place. Keep container tightly closed. Store away from heat. Store away from acids. Store away from strong oxidizing agents.

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## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

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### Occupational exposure limits

None

### Engineering controls

Provide appropriate local exhaust when product is heated. If ventilation is not adequate, use respiratory protection equipment.

### Personal protective equipment

#### Respiratory protection

Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Skin/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.

#### 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.

#### Eye protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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### Appearance

Form

Liquid

Color

Colorless, clear

**Safety Data**

pH	Not applicable
Melting Point/Freezing Point	-52 °C
Boiling Point	178 °C
Flash Point	None
Auto-ignition Temperature	No data available
Flammable Limits (LEL)	None detected
Flammable Limits (UEL)	None detected
Thermal Decomposition Temperature	No data available
Vapor Pressure	No data available
Density	1.883 g/mL @ 25 °C
Water Solubility	Insoluble
Solubility in Water	No data available
Partition Coefficient ( <i>n</i> -octanol/water)	Log Pow: 9.98
Relative Vapor Density (Air = 1)	No data available
Odor	No data available
Odor Threshold	No data available
Evaporation Rate	No data available
Refractive index	No data available
Viscosity	No data available

**10. STABILITY AND REACTIVITY**

<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 300 °C.
<b>Materials to avoid</b>	Strong acids, strong oxidizing agents.
<b>Hazardous decomposition products</b>	Hazardous decomposition products formed under fire conditions – nitrogen oxides, carbon oxides, hydrogen fluoride.

**11. TOXICOLOGICAL INFORMATION****Acute Toxicity**

Route	Species	Value
Oral	Rat	LD50 > 10,000 mg/kg

**Skin Corrosion/Irritation**

For the component/components, either no data are currently available or the data are not sufficient for classification. **Serious Eye Damage/Irritation** For the component/components, either no data are currently available or the data are not sufficient for classification. **Skin Sensitization** For the component/components, either no data are currently available or the data are not sufficient for classification. **Respiratory Sensitization** For the component/components, either no data are currently available or the data are not sufficient for classification.

<b>Germ Cell Mutagenicity</b>	For the component/components, either no data are currently available or the data are not sufficient for classification.
<b>Carcinogenicity</b>	<p>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.</p> <p>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.</p> <p>OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.</p>
<b>Specific target organ toxicity – single exposure</b>	For the component/components, either no data are currently available or the data are not sufficient for classification.
<b>Specific target organ toxicity – repeated exposure</b>	For the component/components, either no data are currently available or the data are not sufficient for classification.
<b>Aspiration Hazard</b>	For the component/components, either no data are currently available or the data are not sufficient for classification.
<b>Synergistic Effects</b>	No data available
<b>Additional Information</b>	YA1000000

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**12. ECOLOGICAL INFORMATION**

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<b>Aquatic Toxicity</b>	No data available
<b>Persistence and Degradability</b>	<p>Biodegradability Result: - Not readily biodegradable. (MITI test)</p> <p>Remarks: (HSDB)</p> <p>Result: 5 % - Not readily biodegradable.</p>
<b>Bioaccumulative potential</b>	<p>Bioaccumulation Cyprinus carpio (Carp) - 42 d - 0.01 mg/l(tris(nonafluorobutyl)amine)</p> <p>Bioconcentration factor (BCF): 19 - 34</p>
<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
<b>Other adverse effects</b>	No data available

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**13. DISPOSAL CONSIDERATIONS**

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<b>Product</b>	Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Contact Fluoryx Labs 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
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<b>IMDG</b>	Not dangerous goods
<b>IATA</b>	Not dangerous goods

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## 15. REGULATORY INFORMATION

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<b>SARA 302 Components</b>	This material does not contain any components with a section 302 EHS TPQ.
<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>Massachusetts Right To Know Components</b>	No components are subject to the Massachusetts Right to Know Act.
<b>Pennsylvania Right To Know Components</b>	Tris(nonafluorobutyl)amine, CAS-No. 311-89-7
<b>New Jersey Right To Know Components</b>	Tris(nonafluorobutyl)amine, CAS-No. 311-89-7
<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.

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## 16. OTHER INFORMATION

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### 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