

**FC13-7300****3-Methoxyperfluoro(2-Methylpentane)**

Revised 21-Mar-2023

**1. PRODUCT AND COMPANY IDENTIFICATION**

<b>Product Name</b>	3-Methoxyperfluoro(2-methylpentane)
<b>Catalog Number</b>	FC13-7300
<b>CAS Number</b>	132182-92-4
<b>Supplier</b>	<b>Fluoryx Labs</b> 3650 Research Way, #22 Carson City, NV 89706 USA
<b>Uses</b>	Heat transfer agent; cooling agent; electrical insulator; solvent; laboratory chemical
<b>Emergency call (VelocityEHS):</b>	+01-813-248-0585 (International) +1-800-255-3924 (USA)

**2. HAZARDS INFORMATION****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**

Inhalation of decomposition products from overheating may cause lung irritation or shortness of breath.

**3. COMPOSITION AND INFORMATION ON INGREDIENTS**

<b>Synonyms</b>	1,1,1,2,2,3,4,5,5,5-Decafluoro-3-methoxy-4-(trifluoromethyl)pentane; Decafluoro-3-methoxy-4-(trifluoromethyl)pentane; Pentane, 1,1,1,2,2,3,4,5,5,5-decafluoro-3-methoxy-4-(trifluoromethyl)-; HFE-7300; Novec™-7300
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<b>Chemical formula</b>	CF <sub>3</sub> CF <sub>2</sub> CF(OCH <sub>3</sub> )CF(CF <sub>3</sub> ) <sub>2</sub> C <sub>7</sub> H <sub>3</sub> F <sub>13</sub> O
<b>Molecular weight</b>	350.08 g/mol
<b>CAS number</b>	132182-92-4
<b>EC number</b>	459-520-5
<b>TSCA status</b>	Listed

**Components**

Material	Classification	Concentration
3-Methoxyperfluoro(2-methylpentane)	None	≤ 100%

**4. FIRST AID MEASURES**

<b>If inhaled</b>	No need for first aid is anticipated.
<b>In case of skin contact</b>	No need for first aid is anticipated.
<b>In case of eye contact</b>	No need for first aid is anticipated.
<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>	Material will not burn. Use a firefighting agent suitable for the surrounding fire.
<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 - carbon oxides, hydrogen fluoride.

**6. ACCIDENTAL RELEASE MEASURES**

<b>Personal precautions</b>	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 solvent 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 bases. Store away from oxidizing agents.

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## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

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### Occupational exposure limits

TWA (8 hours): 100 ppm  
TWA: Time-Weighted-Average

### Engineering controls

Provide appropriate local exhaust when product is heated. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

### Personal protective equipment

#### Respiratory protection

During heating: Use a positive pressure supplied-air respirator if there is a potential for over exposure from an uncontrolled release, exposure levels are not known, or under any other circumstances where air-purifying respirators may not provide adequate protection.

#### Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Gloves made from the following material(s) are recommended: Neoprene. If this product is used in a manner that presents a higher potential for exposure (e.g., spraying, high splash potential, etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following

protective clothing material(s) are recommended:  
Neoprene apron.

**Eye protection**

Not required.

**Thermal hazards**

Wear heat insulating gloves when handling hot material to prevent thermal burns.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Appearance**

Form	Liquid
Color	Colorless, clear

**Safety Data**

pH	Not applicable
Melting Point/Freezing Point	-38 °C
Boiling Point	97.8 °C
Flash Point	None
Auto-ignition Temperature	408 °C (ASTM E659-78 Method)
Flammable Limits (LEL)	None detected
Flammable Limits (UEL)	None detected
Thermal Decomposition Temperature	> 200 °C (anhydrous)
Vapor Pressure	15,584.8 Pa @ 20 °C
Percent volatile	100 %
Density	1.67 g/mL
Water Solubility	0.295 ppm @ 23 °C
Solubility of water in FC13-7300	Slight
Partition Coefficient ( <i>n</i> -octanol/water)	4.3 @ 30 °C
Relative Vapor Density (Air = 1)	0.014 @ 25 °C
Odor	Faint
Odor Threshold	No data available
Evaporation Rate	0.07
Refractive index	No data available
Viscosity	< 5 mPa-s @ 25 °C

**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 300 °C.

**Materials to avoid**

Strong bases, strong acids, strong oxidizing agents.

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions - carbon oxides, hydrogen fluoride, perfluoroisobutylene (PFIB).

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**11. TOXICOLOGICAL INFORMATION**


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**Acute Toxicity**

Route	Species	Value
Dermal	Rat	LD50 > 2,000 mg/kg
Inhalation-Vapor (4 hours)	Rat	LC50 > 430 mg/l
Ingestion	Rat	LD50 > 2,000 mg/kg

**Skin Corrosion/Irritation**

Species	Value
Rabbit	No significant irritation

**Serious Eye Damage/Irritation**

Species	Value
Rabbit	No significant irritation

**Skin Sensitization**

Species	Value
Mouse	Not classified

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

**Germ Cell Mutagenicity**

Route	Value
In Vitro	Not mutagenic
In Vivo	Not mutagenic

**Carcinogenicity** For the component/components, either no data are currently available or the data are not sufficient for classification.

**Reproductive Toxicity****Reproductive and/or Developmental Effects**

Route	Value	Species	Test Result	Exposure Duration
Inhalation	Not classified for female reproduction	Rat	NOAEL 281 mg/L	Premating into lactation
Inhalation	Not classified for male reproduction	Rat	NOAEL 281 mg/L	28 days
Inhalation	Not classified for development	Rat	NOAEL 281 mg/L	Premating into lactation

**Target Organ(s)****Specific Target Organ Toxicity – single exposure**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Specific Target Organ Toxicity - repeated exposure**

Route	Target Organs(s)	Value	Species	Test Result	Exposure Duration
Inhalation	endocrine system   liver   heart   hematopoietic system   immune system   nervous system   kidney and/or bladder	Not classified	Rat	NOAEL 281 mg/L	28 days
Inhalation	Respiratory system	Not classified	Rat	NOAEL 143 mg/l	5 days
Ingestion	liver   kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 150 mg/kg/day	28 days
Ingestion	endocrine system   bone, teeth, nails, and/or hair   hematopoietic system   heart   immune system   nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days

**Aspiration Hazard**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Synergistic Effects**

No data available

**Additional Information**

No data available

**12. ECOLOGICAL INFORMATION****Acute Aquatic Hazard**

Not acutely toxic to aquatic life by GHS criteria. No toxicity at limit of water solubility.

**Chronic Aquatic Hazard**

Not chronically toxic to aquatic life by GHS criteria.

Organism	Type	Exposure	Test Endpoint	Test Results
Activated sludge	Experimental	3 hours	No toxicity observed at limit of water solubility	>1000 mg/l
Green algae	Experimental	72 hours	No toxicity observed at limit of water solubility	>100 mg/l
Medaka	Experimental	96 hours	No toxicity observed at limit of water solubility	>100mg/ml
Water flea	Experimental	48 hours	No toxicity observed at limit of water solubility	>100 mg/l

**Persistence and Degradability**

Test Type	Duration	Study Type	Test Result	Protocol
Experimental photolysis		Photolytic half-life (in air)	2.63 years ( $t_{1/2}$ )	Non-standard method
Experimental biodegradation	28 days	Biological Oxygen Demand	0 % BOD/ThBOD	OECD 301D – Closed Bottle Test

<b>Bioaccumulative Potential</b>	No data available
<b>Mobility in Soil</b>	No data available
<b>PBT and vPvB Assessment</b>	No data available
<b>Other adverse effects</b>	No data available

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### 13. DISPOSAL CONSIDERATIONS

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<b>Product</b>	According to the Environmental Quality (Scheduled Wastes) Regulations 2005, scheduled waste has to be sent to a prescribed premise for recycling, treatment or disposal. Contact Fluoryx Labs to return unused product.
<b>Contaminated packaging</b>	Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations.
<b>EPA Hazardous Waste Number (RCRA)</b>	Not regulated

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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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#### Chemical Inventories

The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. The components of this product are in compliance with the new substance notification requirements of CEPA. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory. The components of this product are in compliance with the chemical notification requirements of TSCA.

<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>Massachusetts Right To Know Components</b>	No components are subject to the Massachusetts Right to Know Act.
<b>Pennsylvania Right To Know Components</b>	No components are subject to the Pennsylvania Right to Know Act.
<b>New Jersey Right To Know Components</b>	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.

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**16. OTHER INFORMATION**

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**Further information:**

NFPA Hazard Classification

Health: 3  
Flammability: 0  
Instability: 0  
Special Hazards: None

HMIS Hazard Classification

Health: 1  
Flammability: 0  
Physical Hazard: 0  
Personal Protection: X - See PPE section.

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