

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations SDS ID: 1300221 Issue date: 27.02.2016 Revision date: 18.12.2023 Version: 1.1

#### **SECTION 1: Identification** 1.1. Identification Product form ÷ Substance Substance name Perfluorohept-3-ene : : 71039-88-8 CAS-No. Product code : 1300-2-21 Formula : C7F14 Synonyms : 1,1,1,2,2,3,4,5,5,6,6,7,7,7-Tetradecafluorohept-3-ene Other means of identification : MFCD28054275 1.2. Recommended use and restrictions on use Use of the substance/mixture : Laboratory chemicals Manufacture of substances Scientific research and development 1.3. Supplier SynQuest Laboratories, Inc. Inc. P.O. Box 309 Alachua, FL, Alachua, 32615 United States of America T (386) 462-0788 - F (386) 462-7097 info@synquestlabs.com - www.synquestlabs.com 1.4. Emergency telephone number : (844) 523-4086 (3E Company - Account 10069) Emergency number SECTION 2: Hazard(s) identification 2.1. Classification of the substance or mixture **GHS US classification**

Skin corrosion/irritation Category 2	H315	Causes skin irritation
Serious eye damage/eye irritation Category 2A	H319	Causes serious eye irritation
Specific target organ toxicity – Single exposure, Category 3,	H335	May cause respiratory irritation
Respiratory tract irritation		

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

#### GHS US labeling

Hazard pictograms (GHS US)

	$\mathbf{V}$
Signal word (GHS US)	: Warning
Hazard statements (GHS US)	: H315 - Causes skin irritation
	H319 - Causes serious eye irritation
	H335 - May cause respiratory irritation
Precautionary statements (GHS US)	: P261 - Avoid breathing fumes, mist, spray, vapors.

P264 - Wash skin thoroughly after handling

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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

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

No additional information available

#### **SECTION 3: Composition/Information on ingredients**

#### 3.1. Substances

Substance type

: Mono-constituent

Name	Product identifier	%	GHS US classification
Perfluorohept-3-ene (Main constituent)	CAS-No.: 71039-88-8		Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335

Full text of hazard classes and H-statements : see section 16

#### 3.2. Mixtures

Not applicable

SECTION 4: First-aid measures	
4.1. Description of first aid measures	
First-aid measures general	: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Move the affected personnel away from the contaminated area.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration. Get medical advice/attention.
First-aid measures after skin contact	: Wash with plenty of soap and water. Get medical advice/attention.
First-aid measures after eye contact	: Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
First-aid measures after ingestion	: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth out with water. Get medical advice/attention.
4.2. Most important symptoms and e	ffects (acute and delayed)
Symptoms/effects	: The most important known symptoms and effects are described in the labelling (see section 2.2)

and/or in section 11.

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## 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures	
5.1. Suitable (and unsuitable) extinguishing	j media
Suitable extinguishing media	: Alcohol resistant foam. Carbon dioxide. Dry powder. Water spray. Use extinguishing media appropriate for surrounding fire.
5.2. Specific hazards arising from the chem	lical
Fire hazard Explosion hazard	<ul> <li>Thermal decomposition generates: Carbon oxides. Hydrogen fluoride.</li> <li>Risk of explosion if heated under confinement. Use water spray or fog for cooling exposed containers.</li> </ul>
5.3. Special protective equipment and prec	autions for fire-fighters
Firefighting instructions Protection during firefighting	<ul> <li>In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.</li> <li>Wear gas tight chemically protective clothing in combination with self contained breathing apparatus. For further information refer to section 8: "Exposure controls/personal protection".</li> </ul>

SECTION 6: Accidental release	measures
6.1. Personal precautions, protective	/e equipment and emergency procedures
General measures	: Evacuate unnecessary personnel. Ensure adequate air ventilation. Do not breathe gas, fumes, vapor or spray.
6.1.1. For non-emergency personnel	
Emergency procedures	: Only qualified personnel equipped with suitable protective equipment may intervene.
6.1.2. For emergency responders	
Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Gas/vapor heavier than air. May accumulate in confined spaces, particularly at or below ground level.

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for cont	ainment and cleaning up
For containment	: Stop leak if safe to do so. Dike for recovery or absorb with appropriate material.
Methods for cleaning up	: Take up large spills with pump or vacuum and finish with dry chemical absorbent. Use explosion- proof equipment. Take up small spills with dry chemical absorbent. Sweep or shovel spills into appropriate container for disposal. Ventilate area.
Other information	: For disposal of solid materials or residues refer to section 13 : "Disposal considerations".
6.4. Reference to other sections	

No additional information available

6.2. Environmental precautions

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SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Precautions for safe handling Hygiene measures	<ul> <li>Do not handle until all safety precautions have been read and understood. Ensure good ventilation of the work station. Do not breathe fumes, mist, spray, vapors. Wear personal protective equipment. Avoid contact with skin and eyes.</li> <li>Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or</li> </ul>
	smoke when using this product. Always wash hands after handling the product.
7.2. Conditions for safe storage, including	any incompatibilities
Technical measures Storage conditions Incompatible materials Storage temperature Storage area	<ul> <li>Comply with applicable regulations.</li> <li>Keep container closed when not in use.</li> <li>Refer to Section 10 on Incompatible Materials.</li> <li>2 - 8 °C</li> <li>Store in dry, well-ventilated area.</li> </ul>
SECTION 8: Exposure controls/person	al protection
8.1. Control parameters	
Perfluorohept-3-ene (71039-88-8)	
No additional information available	
8.2. Appropriate engineering controls	
Appropriate engineering controls	: Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
8.3. Individual protection measures/Person	al protective equipment
Hand protection:	
protective gloves. 29 CFR 1910.138: Hand Protecti	ion
Eye protection:	
Chemical goggles or safety glasses. Face shield. 2	9 CFR 1910.133: Eye and Face Protection
Skin and body protection:	
Wear suitable protective clothing	
Respiratory protection:	
In case of inadequate ventilation wear respiratory p	protection. 29 CFR 1910.134: Respiratory Protection
Personal protective equipment symbol(s):	

Other information:

Safety shoes. 29 CFR 1910.136: Foot Protection.

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#### **SECTION 9: Physical and chemical properties**

#### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: No data available
Odor	: No data available
Odor threshold	: No data available
рН	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 69 – 71 °C
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Molecular mass	: 350,05 g/mol
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

#### 9.2. Other information

No additional information available

#### **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

No additional information available

**10.2. Chemical stability** 

The product is stable at normal handling and storage conditions.

**10.3. Possibility of hazardous reactions** 

No additional information available

**10.4. Conditions to avoid** 

Keep away from heat, sparks and flame.

**10.5. Incompatible materials** 

Alkali metals. Finely divided metals (Al, Mg, Zn). Strong acids. Strong bases. Strong oxidizing agents.

#### **10.6. Hazardous decomposition products**

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Hazardous decomposition products in case of fire, see Section 5.

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## **SECTION 11: Toxicological information**

# SECTION 12: Ecological information 12.1. Toxicity No additional information available 12.2. Persistence and degradability Perfluorobent-3-ene (71039-88-8)

Persistence and degradability	Not readily biodegradable. May cause long-term adverse effects in the environment. PBT - Persistent, Bioaccumulative and Toxic.
12.3. Bioaccumulative potential	

Perfluorinated alkanes (PFAs, "forever chemicals") are long lasting, widely used chemicals that break down slowly over time. The potential hazards of PFAs are under investigation and have not been established.

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations		
13.1. Disposal methods		
Waste treatment methods Sewage disposal recommendations Product/Packaging disposal recommendations Additional information	<ul> <li>Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber.</li> <li>See the EPA's Interim Guidance on PFAS Destruction and Disposal.</li> <li>Dispose of contents/container in accordance with licensed collector's sorting instructions.</li> <li>Recycle the material as far as possible.</li> </ul>	

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Ecology - waste materials : This material is considered to be a "Forever chemical". Prevent any possible release to the environment. Do not discharge into drains. Take all necessary measures to prevent accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems, or emergency response. **SECTION 14: Transport information** 14.1. UN number Not regulated for transport 14.2. UN proper shipping name Proper Shipping Name (DOT) Not applicable : Proper Shipping Name (TDG) Not applicable : Proper Shipping Name (IMDG) Not applicable : Proper Shipping Name (IATA) Not applicable : 14.3. Transport hazard class(es) DOT Transport hazard class(es) (DOT) : Not applicable TDG Transport hazard class(es) (TDG) : Not applicable IMDG Transport hazard class(es) (IMDG) : Not applicable ΙΑΤΑ Transport hazard class(es) (IATA) : Not applicable 14.4. Packing group Packing group (DOT) Not applicable : Packing group (TDG) Not applicable : Packing group (IMDG) Not applicable : Packing group (IATA) : Not applicable 14.5. Environmental hazards Other information : No supplementary information available. 14.6. Special precautions for user DOT No data available TDG No data available IMDG No data available ΙΑΤΑ No data available 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

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SECTION 15: Regulatory information			
15.1. US Federal regulations			
All components of this product are present and listed a (TSCA) inventory, except for:	as Active on the United States Environn	nental Protection Agency Toxic Substances Control Act	
Perfluorohept-3-ene	CAS-No. 71039-88-8	100%	
15.2. International regulations			
CANADA No additional information available			
EU-Regulations No additional information available			
National regulations			
Perfluorohept-3-ene (71039-88-8)			
Listed on the Japanese ISHL (Industrial Safety and Health Law)			

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

## **SECTION 16: Other information**

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Full text of H-phrases	
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation

NFPA health hazard NFPA fire hazard	<ul> <li>3 - Materials that, under emergency conditions, can cause serious or permanent injury.</li> <li>0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.</li> </ul>
NFPA reactivity	: 0 - Material that in themselves are normally stable, even under fire conditions.
Hazard Rating Health	: 2 Moderate Hazard - Temporary or minor injury may occur
	: 0 Minimal Hazard - Materials that will not burn
Flammability	
Physical	: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Safety Data Sheet (SDS), USA