

# Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations SDS ID: 130021E Issue date: 27.02.2016 Revision date: 18.12.2023 Version: 1.1

SECTION 1: Identification	
1.1. Identification	
Product form Substance name CAS-No. Product code Formula Other means of identification	<ul> <li>Substance</li> <li>Perfluorotetradecene-1</li> <li>54097-08-4</li> <li>1300-2-1E</li> <li>C14F28</li> <li>MFCD28136533</li> </ul>
1.2. Recommended use and restrictions on	i 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	
Emergency number	: (844) 523-4086 (3E Company - Account 10069)
SECTION 2: Hazard(s) identification	
2.1. Classification of the substance or mixed	ture
GHS US classification Skin corrosion/irritation Category 2 Serious eye damage/eye irritation Category 2A Specific target organ toxicity – Single exposure, Cat Respiratory tract irritation Full text of H statements : see section 16	H315 Causes skin irritation H319 Causes serious eye irritation tegory 3, H335 May cause respiratory irritation
2.2. GHS Label elements, including precau	tionary statements
GHS US labeling	
Hazard pictograms (GHS US)	
Signal word (GHS US) Hazard statements (GHS US)	<ul> <li>Warning</li> <li>H315 - Causes skin irritation</li> <li>H319 - Causes serious eye irritation</li> <li>H335 - May cause respiratory irritation</li> </ul>
Precautionary statements (GHS US)	<ul> <li>P261 - Avoid breathing fumes, mist, spray, vapors.</li> <li>P264 - Wash skin thoroughly after handling</li> <li>P271 - Use only outdoors or in a well-ventilated area.</li> </ul>

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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
Perfluorotetradecene-1 (Main constituent)	CAS-No.: 54097-08-4		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 effects	(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	g 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	nical	
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	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 containment 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, includ	ing 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/per	sonal protection	
8.1. Control parameters		
Perfluorotetradecene-1 (54097-08-4)		
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/Personal protective equipment		
Hand protection:		
protective gloves. 29 CFR 1910.138: Hand Pro	otection	
Eye protection:		
Chemical goggles or safety glasses. Face shield. 29 CFR 1910.133: Eye and Face Protection		
Skin and body protection:		
Wear suitable protective clothing		
Respiratory protection:		
In case of inadequate ventilation wear respiratory 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
pH Malting point	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
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	: 700,11 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**

11.1. Information on toxicological e	ffects
Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause respiratory irritation.
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Symptoms/effects	: The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

## SECTION 12: Ecological information

### 12.1. Toxicity

### No additional information available

12.2. Persistence and degradability	
Perfluorotetradecene-1 (54097-08-4)	
Persistence and degradability	Not readily biodegradable. May cause long-term adverse effects in the environment. PBT - Persistent, Bioaccumulative and Toxic.
12.3. Bioaccumulative potential	
12.3. Bioaccumulative potential	

Perfluorotetradecene-1 (54097-08-4)	
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.
12.4. Mobility in soil	

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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: This material is considered to be a "Forever chemical". Prevent any possible release to the Ecology - waste materials 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 as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:				
Perfluorotetradecene-1	CAS-No. 54097-08-4	100%		
15.2. International regulations				
CANADA				
No additional information available				
EU-Regulations				
No additional information available				
National regulations				

No additional information available

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	ť	: 3 - Materials that, under emergency conditions, can cause serious or permanent injury.	
NFPA fire hazard		: 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.	
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	
Flammability Physical		<ul> <li>0 Minimal Hazard - Materials that will not burn</li> <li>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.</li> </ul>	

Safety Data Sheet (SDS), USA