

Safety Data Sheet 6362201

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Date of issue: 08/01/2016 Version: 1.0

Hazard pictograms (GHS-US) Signal word (GHS-US)	 GHS07 Warning H315 - Causes skin irritation H319 - Causes serious eye irritation H335 - May cause respiratory irritation P261 - Avoid breathing fumes, mist, spray, vapors P264 - Wash skin thoroughly after handling 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
GHS-US labeling Hazard pictograms (GHS-US) Signal word (GHS-US) Hazard statements (GHS-US)	: Warning : H315 - Causes skin irritation H319 - Causes serious eye irritation
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CUS US laboling	
2.2. Label elements	
Full text of H-phrases: see section 16	
Eye Irrit. 2A H319 - Causes serious eye in STOT SE 3 H335 - May cause respirator	
Skin Irrit. 2 H315 - Causes skin irritation	
Classification (GHS-US)	
2.1. Classification of the substance	
SECTION 2: Hazard(s) identificati	on
mergency number	: (844) 523-4086 (3E Company - Account 10069)
1.4. Emergency telephone number	
SynQuest Laboratories, Inc. P.O. Box 309 Alachua, FL 32615 - United States of Americ T (386) 462-0788 - F (386) 462-7097 info@synquestlabs.com - www.synquestlabs	
1.3. Details of the supplier of the saf SynQuest Laboratories, Inc.	ety data sneet
4.2 Details of the summition of the	Scientific research and development
Jse of the substance/mixture	: Laboratory chemicals Manufacture of substances
	substance or mixture and uses advised against
Other means of identification	: MFCD00798138
	fluoride; 2-Fluorosulfonyltetrafluoroethyl trifluorovinyl ether
Synonyms	: Perfluoro-2-(2-fluorosulfonylethoxy)propyl vinyl ether; Perfluoro(3-oxapent-4-ene)sulfonyl
	: C7F14O4S
	: 16090-14-5 : 6362-2-01
Product code	: Perfluoro(4-methyl-3,6-dioxaoct-7-ene)sulfonyl fluoride
CAS No Product code	
Substance name CAS No Product code	
Identification Product form Substance name CAS No Product code Formula	: Substance

Other hazards

2.3.

Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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

Perturnor4-methyl-38-dioxaadr-7-enejeullonyl fluoride (CAS No) 16090-14-5 <= 100 Silen Hrit 2, H315 By TOT SE 3, H335 Full text of H-phrases: see section 16 3.2 Mixture Not applicable SECTION 4: First alid measures In case of accident or if you feel unwell, seek medical advice immediately (show the lab where possible). Move the affected personnel away from the contaminated area. First-aid measures general : In case of accident or if you feel unwell, seek medical advice immediately (show the lab 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 breaking. If not breakting, give ar respiration. Get immediate medical advice/attention. First-aid measures after sey contact : Wash with plenty of soap and water, Remove contaminues yint the aff area for 1.5 hours or until further medical advice/attention. First-aid measures after sey contact : Immediately flush yees thoroughy with water for at least 1 for innuces. Remove contact advice/attention. First-aid measures after ingestion : Do NOT induce vomiting. Never give anything by mouth to a unconscious person. Rine mouth out with water. Get immediate medical advice/attention. 4.2.0 Most Important symptoms and effects. both actic and delayd Symptoms/injuries : The most important known symptoms and effects are described in the labeliling (see see 2.2) and/or in section 11. <	No additional information available					
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3.1 Substance type : Mono-consituent Substance type : Mono-consituent % Classification (GHS-UE Berlinvord-methyl-8.6-diaexact-7-ene)guillony/fluoride (CAB No) 18090-14-5 4= 100 Skin Int. 2, H315 STOT SE 3, H335 Full text of H-phrases: see section 16	Not applicable					
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Name Product identifier % Classification (GHS-UI bin motion) Perfound-(+mith)-3.6-dioxacct-7-ene)sulfonyl fluoride (face nonliner) (CAS No) 18090-14-5 <= 100	3.1. Substance					
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6.1. Personal precautions, protective equipment and emergency procedures General measures : Evacuate unnecessary personnel. Ensure adequate air ventilation. Do not breathe gas, vapor or spray.	Protection during firefighting					
General measures : Evacuate unnecessary personnel. Ensure adequate air ventilation. Do not breathe gas, vapor or spray.	SECTION 6: Accidental release meas	ures				
vapor or spray.	6.1. Personal precautions, protective equ	-				
12/08/2016 EN (English US) SDS ID: 6362201	General measures			equate air ventila	ation. Do not breathe gas,	fumes,
	12/08/2016	EN (Eng	glish US)	SDS ID: 6362201		2/6

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6.1.1.	For non-emergency personnel		
Emergen	cy procedures	:	Only qualified personnel equipped with suitable protective equipment may intervene.
6.1.2.	For emergency responders		
Protective	e equipment		Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergen	cy procedures		Gas/vapor heavier than air. May accumulate in confined spaces, particularly at or below ground level.
6.2.	Environmental precautions		

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 avail	able			
SECTION 7: Handling a	and storage			
7.1. Precautions for sat	ie handling			
Precautions for safe handling	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.			
Hygiene measures	: Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.			
7.2. Conditions for safe	e storage, including any incompatibilities			
Technical measures	: Comply with applicable regulations.			
Storage conditions	: Keep container closed when not in use. Moisture sensitive. Keep contents under inert gas.			
Incompatible materials	: Refer to Section 10 on Incompatible Materials.			
Storage area	: Store in dry, cool, well-ventilated area.			
Special rules on packaging	: Do not store in glass.			

SECTION 8: Exposure controls/personal protection

8.1. **Control parameters**

No additional information available

8.2. **Exposure 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. Hand protection : Protective gloves. 29 CFR 1910.138: Hand Protection. : Chemical goggles or safety glasses. Face shield. 29 CFR 1910.133: Eye and Face Protection. Eye protection Skin and body protection : Wear suitable protective clothing. : In case of inadequate ventilation wear respiratory protection. 29 CFR 1910.134: Respiratory Respiratory protection Protection. Other information : Safety shoes. 29 CFR 1910.136: Foot Protection.

SECTION 9: Physical an	d chemical properties				
9.1. Information on basic	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				

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	aa), maron 20, 20 12 / Haroo and Hog
Boiling point	: 135 °C
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Vapor pressure	: 1.5 mm Hg (@ 37.8 °C)
Relative density	: No data available
Relative vapor density at 20 °C	: No data available
Specific gravity / density	: 1.7 g/ml (@ 38 °C)
Molecular mass	: 446.11 g/mol
Solubility	: No data available
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

9.2. **Other information**

No additional information available

SECTI	ON 10: Stability and reactivity
10.1.	Reactivity
No additi	ional information available
10.2.	Chemical stability
The prod	luct is stable at normal handling and storage conditions.
10.3.	Possibility of hazardous reactions
Contact	with acids liberates toxic gas. Contact with water liberates toxic gas.
10.4.	Conditions to avoid
Keep aw	ay from heat, sparks and flame.
10.5.	Incompatible materials
Acids. G	lass. Strong bases. Strong oxidizing agents. Water.
10.6.	Hazardous decomposition products
	ormal conditions of storage and use, hazardous decomposition products should not be produced. Hazardous decomposition products in case of Section 5.
SECTI	ON 11: Toxicological information

11.1. Information on toxicological effects	
Acute toxicity	: Not classified
Skin corrosion/irritation Serious eye damage/irritation Respiratory or skin sensitization Germ cell mutagenicity	 Causes skin irritation. Causes serious eye irritation. Not classified Not classified
Carcinogenicity	: Not classified
Reproductive toxicity Specific target organ toxicity (single exposure)	 Not classified May cause respiratory irritation.
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

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Potential Adverse human health effects and symptoms	 Absorption of excessive F- can result in acute systemic fluorosis with hypocalcemia, interference with various metabolic functions and organ damage (heart, liver, kidneys).
Symptoms/injuries after inhalation	: Material is destructive to tissue of the mucuous membranes and upper respiratory tract. Cough, shortness of breath, headache, nausea.
SECTION 12: Ecological informa	tion
12.1. Toxicity	
No additional information available	
12.2. Persistence and degradability	
No additional information available	
12.3. Bioaccumulative potential	
No additional information available	
12.4. Mobility in soil	
No additional information available	
12.5. Other adverse effects	
No additional information available	

SECTION 13: Disposal consider 13.1. Waste treatment methods	
Waste treatment methods	: Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber.
Waste disposal recommendations	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Additional information	: Recycle the material as far as possible.
SECTION 14: Transport informa	tion

Department of Transportation (DOT)

In accordance with DOT

Not regulated for transport

TDG

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information	
15.1. US Federal regulations	
Perfluoro(4-methyl-3,6-dioxaoct-7-ene)sulfonyl fluoride (16090-14-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations CANADA

Perfluoro(4-methyl-3,6-dioxaoct-7-ene)sulfonyl fluoride (16090-14-5)
Listed on the Canadian NDSL (Non-Domestic Substances List)

EU-Regulations

No additional information available

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National regulations

Perfluoro(4-methyl-3,6-dioxaoct-7-ene)sulfonyl fluoride (16090-14-5) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) 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 and/or reproductive harm

SECTION 16: Other information

Full tex	t of H-phrases:	
	Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
	Skin Irrit. 2	Skin corrosion/irritation Category 2
	STOT SE 3	Specific target organ toxicity (single exposure) Category 3
	H315	Causes skin irritation
	H319	Causes serious eye irritation
	H335	May cause respiratory irritation
NFPA	health hazard fire hazard reactivity	 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given. 0 - Materials that will not burn. 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.
HMIS III Rating		
Health		: 2 Moderate Hazard - Temporary or minor injury may occur
Flammability		: 0 Minimal Hazard - Materials that will not burn
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.

SDS US (GHS HazCom 2012)

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is offered solely for your consideration, investigation, and verification. It does not represent any guarantee of the properties of the product nor that the hazard precautions or procedures described are the only ones which exist. SynQuest shall not be held liable or any damage resulting from handling or from contact with the above product.