

Safety Data Sheet 2108260 according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Data of issues 12/21/2015 Devision data: 04/04/2019 Varaian 1 1

SECTION 1: Identification	
1.1. Identification	
Product form	: Substance
Substance name	: Fomblin Z60 (Average MW = 21500)
CAS No	: 69991-61-3
Product code	: 2108-2-60
Formula	: Unspecified
Synonyms	: Tetrafluoroethylene, oxidized, polymerized
Other means of identification	: MFCD00163699
	of the substance or mixture and uses advised against
Use of the substance/mixture	: Laboratory chemicals Manufacture of substances Scientific research and development
1.3. Details of the supplier of t	the safety data sheet
SynQuest Laboratories, Inc. P.O. Box 309 Alachua, FL 32615 - United States of	America
T (386) 462-0788 - F (386) 462-7097 nfo@synquestlabs.com - www.synqu	Jestlabs.com
1.4. Emergency telephone nur	
Emergency number	: (844) 523-4086 (3E Company - Account 10069)
Skin Irrit. 2 H315 - Causes skin in	
Classification (GHS-US) Skin Irrit. 2 H315 - Causes skin irr Eye Irrit. 2A H319 - Causes seriou STOT SE 3 H335 - May cause res	us eye irritation
Skin Irrit. 2 H315 - Causes skin in Eye Irrit. 2A H319 - Causes seriou	us eye irritation spiratory irritation
Skin Irrit. 2 H315 - Causes skin irri Eye Irrit. 2A H319 - Causes seriou STOT SE 3 H335 - May cause res Full text of H-phrases: see section 16	us eye irritation spiratory irritation
Skin Irrit. 2 H315 - Causes skin irri Eye Irrit. 2A H319 - Causes seriou STOT SE 3 H335 - May cause res Full text of H-phrases: see section 16 2.2. Label elements	us eye irritation spiratory irritation
Skin Irrit. 2 H315 - Causes skin irr Eye Irrit. 2A H319 - Causes seriou STOT SE 3 H335 - May cause res Full text of H-phrases: see section 16 2.2. Label elements GHS-US labeling	us eye irritation spiratory irritation
Skin Irrit. 2 H315 - Causes skin irr Eye Irrit. 2A H319 - Causes seriou STOT SE 3 H335 - May cause res Full text of H-phrases: see section 16 2.2. Label elements GHS-US labeling Hazard pictograms (GHS-US)	us eye irritation spiratory irritation
Skin Irrit. 2 H315 - Causes skin irr Eye Irrit. 2A H319 - Causes seriou STOT SE 3 H335 - May cause res Full text of H-phrases: see section 16 2.2. Label elements GHS-US labeling Hazard pictograms (GHS-US)	<ul> <li>seye irritation spiratory irritation</li> <li>: GHS07 </li> <li>: Warning</li> </ul>
Skin Irrit. 2 H315 - Causes skin irr Eye Irrit. 2A H319 - Causes seriou STOT SE 3 H335 - May cause res Full text of H-phrases: see section 16 2.2. Label elements GHS-US labeling	us eye irritation spiratory irritation

P501 - Dispose of contents/container to an approved waste disposal plant

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0.2 Other hererde						
2.3. Other hazards No additional information available						
2.4. Unknown acute toxicity (GHS US)						
Not applicable						
SECTION 3: Composition/informat	ion on in	aradianta				
3.1. Substance		greatents				
Substance type	· Polvn	per				
Name         Product identifier         %         Classification (GHS-US)           Fomblin Z60 (Average MW = 21500)         (CAS No) 69991-61-3         100         Skin Irrit. 2, H315						
Fomblin Z60 (Average MW = 21500)         (CAS No) 69991-61-3         100         Skin Irrit. 2, H315           (Main constituent)         Eye Irrit. 2A, H319         STOT SE 3, H335						
Full text of H-phrases: see section 16						
3.2. Mixture						
Not applicable						
SECTION 4: First aid measures						
4.1. Description of first aid measures						
First-aid measures general	where	se of accident or if you feel unwell, seek possible). Move the affected personne	away from the o	contaminated area.		
First-aid measures after inhalation		ove person to fresh air and keep comfort ation. Get medical advice/attention.	able for breathin	g. If not breathing, give artificial		
First-aid measures after skin contact		with plenty of soap and water. Get med				
First-aid measures after eye contact		diately flush eyes thoroughly with water nt and easy to do. Continue rinsing. Get				
First-aid measures after ingestion		OT induce vomiting. Never give anything n out with water. Get medical advice/atte		unconscious person. Rinse		
4.2. Most important symptoms and eff	ects, both	acute and delayed				
Symptoms/injuries	: The n 2.2) a	nost important known symptoms and effender in section 11.	ects are describe	ed in the labelling (see section		
4.3. Indication of any immediate media	cal attentio	n and special treatment needed				
Treat symptomatically.						
SECTION 5: Firefighting measures						
5.1. Extinguishing media						
Suitable extinguishing media		ol resistant foam. Carbon dioxide. Dry p priate for surrounding fire.	owder. Water sp	ray. Use extinguishing media		
5.2. Special hazards arising from the						
J.Z. Opecial nazarus arising from the s	substance o	or mixture				
Fire hazard		or mixture nal decomposition generates: Carbon ov	ides. Hydrogen	fluoride.		
	: Thern	nal decomposition generates: Carbon ov of explosion if heated under confinement	, ,			
Fire hazard	: Thern : Risk o	nal decomposition generates: Carbon ov of explosion if heated under confinement	, ,			
Fire hazard Explosion hazard	: Thern : Risk o conta	nal decomposition generates: Carbon ov of explosion if heated under confinement	. Use water spra	ay or fog for cooling exposed		
Fire hazard Explosion hazard 5.3. Advice for firefighters	: Them : Risk c conta : In cas : Wear	nal decomposition generates: Carbon op of explosion if heated under confinement iners.	tely due to the risin combination w	ay or fog for cooling exposed sk of explosion. <i>r</i> ith self contained breathing		
Fire hazard Explosion hazard 5.3. Advice for firefighters Firefighting instructions	: Therm : Risk o conta : In cas : Wear appar	nal decomposition generates: Carbon of of explosion if heated under confinement iners. se of fire: Evacuate area. Fight fire remo gas tight chemically protective clothing	tely due to the risin combination w	ay or fog for cooling exposed sk of explosion. <i>r</i> ith self contained breathing		
Fire hazard Explosion hazard 5.3. Advice for firefighters Firefighting instructions Protection during firefighting	: Therm : Risk o conta : In cas : Wear appar asures	nal decomposition generates: Carbon or of explosion if heated under confinement iners. se of fire: Evacuate area. Fight fire remo gas tight chemically protective clothing atus. For further information refer to sec	tely due to the risin combination w	ay or fog for cooling exposed sk of explosion. <i>r</i> ith self contained breathing		
Fire hazard Explosion hazard 5.3. Advice for firefighters Firefighting instructions Protection during firefighting SECTION 6: Accidental release me	: Therm : Risk o conta : In cas : Wear appar asures equipment : Evacu	nal decomposition generates: Carbon or of explosion if heated under confinement iners. se of fire: Evacuate area. Fight fire remo gas tight chemically protective clothing atus. For further information refer to sec	tely due to the risin combination wition 8: "Exposure	ay or fog for cooling exposed sk of explosion. vith self contained breathing e controls/personal protection".		
Fire hazard Explosion hazard 5.3. Advice for firefighters Firefighting instructions Protection during firefighting SECTION 6: Accidental release me 6.1. Personal precautions, protective of General measures	: Therm : Risk o conta : In cas : Wear appar asures equipment : Evacu	nal decomposition generates: Carbon or of explosion if heated under confinement iners. Se of fire: Evacuate area. Fight fire remo gas tight chemically protective clothing ratus. For further information refer to sec and emergency procedures uate unnecessary personnel. Ensure add	tely due to the risin combination wition 8: "Exposure	ay or fog for cooling exposed sk of explosion. vith self contained breathing e controls/personal protection".		
Fire hazard Explosion hazard 5.3. Advice for firefighters Firefighting instructions Protection during firefighting SECTION 6: Accidental release me 6.1. Personal precautions, protective of General measures	: Therm : Risk o conta : In cas : Wear appar asures equipment : Evacu vapor	nal decomposition generates: Carbon or of explosion if heated under confinement iners. Se of fire: Evacuate area. Fight fire remo gas tight chemically protective clothing ratus. For further information refer to sec and emergency procedures uate unnecessary personnel. Ensure add	tely due to the ris in combination w tion 8: "Exposure equate air ventila	ay or fog for cooling exposed sk of explosion. vith self contained breathing e controls/personal protection".		
Fire hazard Explosion hazard 5.3. Advice for firefighters Firefighting instructions Protection during firefighting SECTION 6: Accidental release me 6.1. Personal precautions, protective of General measures 6.1.1. For non-emergency personnel	: Therm : Risk o conta : In cas : Wear appar asures equipment : Evacu vapor	nal decomposition generates: Carbon or of explosion if heated under confinement iners. See of fire: Evacuate area. Fight fire remo gas tight chemically protective clothing ratus. For further information refer to sec and emergency procedures uate unnecessary personnel. Ensure add or spray.	tely due to the ris in combination w tion 8: "Exposure equate air ventila	ay or fog for cooling exposed sk of explosion. vith self contained breathing e controls/personal protection".		
Fire hazard Explosion hazard 5.3. Advice for firefighters Firefighting instructions Protection during firefighting SECTION 6: Accidental release me 6.1. Personal precautions, protective of General measures 6.1.1. For non-emergency personnel Emergency procedures	: Therm : Risk o conta : In cas : Wear appar asures equipment : Evacu vapor : Only	nal decomposition generates: Carbon or of explosion if heated under confinement iners. See of fire: Evacuate area. Fight fire remo gas tight chemically protective clothing ratus. For further information refer to sec and emergency procedures uate unnecessary personnel. Ensure add or spray.	tely due to the rist in combination w tion 8: "Exposure equate air ventila le protective equip	ay or fog for cooling exposed sk of explosion. /ith self contained breathing e controls/personal protection". ation. Do not breathe gas, fumes,		
Fire hazard Explosion hazard 5.3. Advice for firefighters Firefighting instructions Protection during firefighting SECTION 6: Accidental release me 6.1. Personal precautions, protective of General measures 6.1.1. For non-emergency personnel Emergency procedures 6.1.2. For emergency responders	: Therm : Risk of conta : In cas : Wear appar asures equipment : Evacu vapor : Only of refer	nal decomposition generates: Carbon or of explosion if heated under confinement iners. See of fire: Evacuate area. Fight fire remo gas tight chemically protective clothing ratus. For further information refer to sec and emergency procedures uate unnecessary personnel. Ensure add or spray. qualified personnel equipped with suitable of attempt to take action without suitable	tely due to the ris in combination w tion 8: "Exposure equate air ventila le protective equip protective equip il protection".	ay or fog for cooling exposed sk of explosion. /ith self contained breathing e controls/personal protection". ation. Do not breathe gas, fumes, ipment may intervene. ment. For further information		

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6.2. Environmental precautions	Environmental precautions				
Avoid release to the environment. Notify authorities if product enters sewers or public waters.					
6.3. Methods and material for containm	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					
SECTION 7: Handling and storage					
7.1. Precautions for safe 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 storage, includ	ling any incompatibilities				
Technical measures	: Comply with applicable regulations.				
Storage conditions	: Keep container closed when not in use.				
Incompatible materials : Refer to Section 10 on Incompatible Materials.					
Storage area : Store in dry, cool, well-ventilated area.					
Storage area	: Store in dry, cool, well-ventilated area.				

## SECTION 8: Exposure controls/personal protection

#### **Control parameters** 8.1.

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.
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.
Other information	: Safety shoes. 29 CFR 1910.136: Foot Protection.

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

9.1. Information on basic physical and	d chemical properties		
Physical state	: Liquid		
Color	: No data available		
Odor	: No data available		
Odor threshold	: No data available		
рН	: No data available		
Melting point	: -63 °C		
Freezing point	: No data available		
Boiling point	: > 270 °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	: No data available		
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Relative density	: No data available
Relative vapor density at 20 °C	: No data available
Specific gravity / density	: 1.85 g/ml (@ 20 °C)
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	
Refractive index	: 1.29 (@ 20 °C)

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				
Extremely high temperatures.				
10.5. Incompatible materials				
Finely divided metals (AI, Mg, Zn).				
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.

SECTION 11: Toxicological information			
11.1. Information on toxicological effects			
Acute toxicity	: 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		
Specific target organ toxicity (single exposure)	: May cause respiratory irritation.		
Specific target organ toxicity (repeated exposure)	: Not classified		
Aspiration hazard	: Not classified		
SECTION 12: Ecological information			

12.1.	Toxicity			
No addit	ional information available			
12.2.	Persistence and degradability			
No addit	ional information available			
12.3.	Bioaccumulative potential			
No addit	No additional information available			

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## 12.4. Mobility in soil

No additional information available

## 12.5. Other adverse effects

No additional information available

SECTION 13: Disposal consider	rations
13.1. Waste treatment methods	
Waste treatment methods Waste disposal recommendations Additional information	<ul> <li>Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber.</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>
<b>SECTION 14: Transport informa</b>	ition
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

## Fomblin Z60 (Average MW = 21500) (69991-61-3)

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 Fomblin Z60 (Average MW = 21500) (69991-61-3) Listed on the Canadian NDSL (Non-Domestic Substances List)

## **EU-Regulations**

No additional information available

## National regulations

## Fomblin Z60 (Average MW = 21500) (69991-61-3)

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

## 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			
Revision date	: 04/04/2018		

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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 1	given. FPA fire hazard : 0 - Materials that will not b		h prompt medical attention was burn. under fire exposure conditions,
	II Rating		
Health	Health : 0 Minimal Hazard - No sig		gnificant risk to health
Flamm	ammability : 0 Minimal Hazard - Materi		rials that will not burn
Physical       : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, 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.