

TLS/FOCQE
SAFETY DATA SHEET

Revision Date: March 17, 2022
Revision Number: 3 supersedes 2

1. Identification of the substance/mixture and of the company

1.1 Product identifier

Product Name:
Sumitomo Electric Lightwave
Fiber Optic Cleaner

Product ID numbers: FOC-QE

1.2 Relevant identified uses of the mixture and uses advised against

Identified uses: Fiber and precision cleaning

List of advices against: Not applicable.

1.3 Details of the supplier of the safety data sheet

Supplier/Manufacturer:

1.4 Emergency telephone numbers

2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to USA OSHA 29 CFR 1910.1200 (2012) and Canada HPR (SOR/2015-17; WHMIS 2015).

This product is not classified as dangerous according to GHS criteria.

2.2 Label elements

Pictograms: None required.

Signal word: None required.

Hazard Statements: None required.

2.3 Other hazards: No information available.

3. Composition/Information on Ingredients

<u>Component</u>	<u>CAS #</u>	<u>EC #</u>	<u>Wt. %</u>
Methyl nonafluorobutyl ether	163702-07-6	--	19 - 76
Methyl nonafluoroisobutyl ether	163702-08-7	--	19 - 76
Isopropanol	67-63-0	200-661-7	4 - 5

This product contains no reportable hazards components under OSHA 29 CFR 1910, 1200 Canada HPR and European Regulation (EC) No 1272/2008.

4. First Aid Measures

4.1 Description of first aid measures

Eye Contact: If eye irritation from exposure to vapors develops, move to fresh air. Flush eyes with clean water. If irritation persists, seek medical attention. For direct eye contact, flush with large quantity of water for 15 minutes. Seek medical attention.

Skin Contact: Remove contaminated clothing; flush skin thoroughly with water. If irritation occurs, seek medical attention.

Inhalation (Breathing): If irritation of nose or throat develops, move to fresh air. If irritation persists, seek medical attention. If breathing is difficult, provide oxygen. If not breathing, give artificial respiration. Seek immediate medical attention.

Ingestion (Swallowing): Do not induce vomiting or give anything by mouth unless directed to do so by medical personnel. Get medical attention if symptoms appear.

4.2 Most important symptoms and effects, both acute and delayed

Refer to Section 11 for more information.

4.3 Indication of immediate medical attention and special treatment needed.

No information available.

5. Firefighting Measures

5.1 Extinguishing media:

Material will not burn.

5.2 Special hazards arising from the substance or mixture

No unusual fire or explosion hazards are anticipated. No unusual effects are anticipated during fire extinguishing operations. Avoid breathing the products and substances that may result from the thermal decomposition of the product or the other substances in the fire zone.

Hazardous decomposition and by-products:

Burning generates carbon monoxide, carbon dioxide, toxic vapor, gas and particulate during combustion. Hydrogen fluoride and perfluoroisobutylene (PFIB) may be formed at elevated temperatures- extreme conditions of heat.

5.3 Advice for firefighters

Exposure to extreme heat can give rise to thermal decomposition. Keep containers cool with water spray when exposed to fire to avoid rupture. Wear appropriate, protective clothing, including self-contained, positive pressure or pressure-demand breathing apparatus.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:

Ventilate area with fresh air.

6.2 Environmental precautions:

Avoid release to the environment. Dyke the spill to prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods materials for containment and cleaning up:

Absorb spill with sand or absorbents. Collect as much of the spilled material as possible using non-sparking tools and transfer to a container. Seal the container. Remember, adding an absorbent material does not change the toxicity or flammability hazard.

6.4 Reference to other sections:

Refer to Sections 4, 5, 8, and 13 for more information.

7. Handling and Storage

7.1 Precautions for safe handling

For industrial or professional use only. Avoid breathing vapors or spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Contents may be under pressure, open carefully. Use ventilation to control airborne exposure below occupational exposure limits. If ventilation is not adequate, use respiratory protection equipment.

7.2 Conditions for safe storage, including incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store away from strong bases and oxidizing agents.

7.3 Specific end uses

See technical data sheet on this product for further information.

8. Exposure Controls / Personal Protection

8.1 Control parameters

Exposure limits and recommendations:

Component Name	Limit	Standard	Source/Note
Methyl nonafluorobutyl ether	TWA 750 ppm	AIHA	USA
Methyl nonafluoroisobutyl ether	TWA 750 ppm	AIHA	US
Isopropanol	TWA 400 ppm	OSHA, NIOSH	USA
	TWA 400 ppm	EH40/2005 WEL	UK

8.2 Exposure controls

Respiratory protection:

Normal ventilation is adequate. If exposure exceeds recommended limits, respirator protection is recommended. Use a respirator or gas mask with cartridges for organic vapors (NIOSH-approved) or use supplied air equipment.

Protective gloves:

For repeated or prolonged skin contact, the use of impermeable gloves (neoprene, nitrile rubber, polymer laminate) is recommended to prevent drying and possible irritation.

Eye protection:

Safety glasses recommended.

Other protective equipment:

It is suggested that a source of clean water be available in work area for flushing eyes and skin. Impervious clothing should be worn as needed.

9. Physical and Chemical

9.1 Information of basic physical and chemical properties

Appearance:	Clear, colorless liquid; slight alcohol odor.
Odor threshold:	Not available
pH:	Does not apply
Freezing point:	- 43°F / - 42°C
Boiling point:	129°F / 54°C
Evaporation rate:	58 (n-butyl acetate = 1)
Flash point:	No flashpoint
Flammability (solid, gas):	Not applicable to liquids
Upper/lower flammability or explosive limits:	LEL: 4.0% UEL: 16.7%
Vapor pressure:	207 mmHg @25°C
Vapor density (Air = 1):	7.1 (Air = 1)
Specific gravity (H₂O = 1):	1.48
Solubility in water:	Slight (less than 10%)
Coefficient of Water/Oil Distribution:	Not available
Auto-ignition temperature:	443°C
Decomposition temperature:	Not available
Viscosity:	<= 10 centipoise @ 23°C

9.2 Other Information

Volatiles (Weight %):	100%
VOC Content:	67 g/l (calculated SCAQMD rule 443.1)

10. Stability and Reactivity

10.1 Reactivity:

See remaining headings in Section 10.

10.2 Chemical stability:

Stable

10.3 Possibility of hazardous reactions:

None known.

10.4 Conditions to avoid:

None known.

10.5 Incompatible materials :

Strong bases and strong oxidizing agents.

10.6 Hazardous decomposition products:

Carbon dioxide, carbon monoxide, toxic vapor, gas and particulate during combustion. Hydrogen fluoride, perfluoroisobutylene (PFIB) at elevated temperatures/extreme conditions of heat.

11. Toxicological Information

11.1 Information on toxicological effects:

Acute toxicity

Eye contact:

Direct eye contact may cause eye irritation. This irritation is minimal and expected to be transient.

Skin contact:

Prolonged or repeated skin exposure can remove oils, causing redness, drying and cracking. Persons with pre-existing skin disorders may be more susceptible to skin irritation from this material.

Irritation and Sensitization Potential:

Product may be irritating to skin and eyes. It is not a sensitizer.

Inhalation (Breathing):

May cause respiratory tract irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Ingestion:

Ingestion of large quantities may cause irritation of the digestive tract, nervous system depression (e.g., drowsiness, dizziness, loss of coordination, and fatigue).

Toxicity to Animals:

Isopropyl Alcohol	LD ₅₀ (oral rat) 5000 mg/kg
	LD ₅₀ (dermal rabbit) 12800 mg/kg
	LC ₅₀ (inhl rat) 12000, 8 hours

Chronic Exposure:

Reproductive Toxicity: Not classified as a reproductive system toxin.

Mutagenicity: Not classified as a mutagen.

Teratogenicity: Not classified as teratogenic or embryotoxic.

Specific Target Organ Toxicity (STOT) No end point data.

Toxicologically Synergistic Products: Not available.

Carcinogenic Status: This substance has not been identified as a carcinogen or probable carcinogen by NTP, IARC, or OSHA, nor have any of its components.

12. Ecological Information

12.1 Toxicity:

Ecotoxicity: No information available.

Aquatic Toxicity:

Testing results indicate that methyl nonafluoroisobutyl ether and methyl nonafluorobutyl ether have insignificant toxicity to aquatic organisms at their saturation point (Lowest LC₅₀, EC₅₀, or IC₅₀ > substance water solubility). These compounds are highly volatile and have high Henry's Law constants and are thus expected to move rapidly through vaporization from solution in an aquatic compartment or from a soil surface in a terrestrial compartment to the atmosphere.

12.2 Persistence and degradability: No information available

12.3 Bioaccumulation potential:

Methyl nonafluoroisobutyl ether and methyl nonafluorobutyl ether are highly insoluble and very volatile. Bioconcentration is therefore unlikely and not expected as they are not likely to enter aqueous waste streams from typical uses and disposal, or, in the case of a spill, remain in the aquatic or terrestrial compartments. The high potential for these components to move from aquatic or terrestrial environments to the atmosphere indicates bioconcentration is unlikely to occur as they are not expected to be bioavailable.

12.4 Mobility in soil: No information available

12.5 Results of PBT and vPvB Assessment: This product is not, nor does it contain a substance that is a PBT or vPvB.

12.6 Other adverse effects:

Ozone Depletion Potential (ODP): 0
Global Warming Potential (GWP): 320

13. Disposal Considerations

Dispose of product in accordance with National and Local Regulations.

14. Transport Information

US DOT Domestic Ground Transportation: Not Regulated
UN Number: Not Listed
UN Proper shipping name: Not Applicable
Transport hazard class(es): Not Applicable
Packing group: Not Applicable
Environmental hazards: Not Applicable
Special precautions: None Known
ICAO/IATA-DGR: Not Regulated
IMDG: Not Regulated

15. Regulatory Information

USA Federal and State

All components are listed on the TSCA inventory.

Hazard Categories for SARA Section 311/312 Reporting	<u>Acute</u> Yes	<u>Chronic</u> No	<u>Fire</u> No	<u>Pressure</u> No	<u>Reactive</u> No
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Components	CERCLA/SARA Sec 302 Hazardous Substance RQ	EHS TPQ	SARA Sec. 313 Toxic Release
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Components are not affected by these Superfund regulations.

NFPA Ratings:

Health:	3
Fire:	1
Reactivity:	0

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel during spill, fire or similar emergencies. Hazard ratings are based on physical and toxic properties of combustion or decomposition.

California Proposition 65

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm or has been assessed to be below OEHHA Safe Harbor exposure levels required for labeling.

European Union

All components are listed on the European Inventory of Existing Chemical Substances (ELINCS). Product complies with the communication requirements of REACH Regulation (EC) No. 1907/2006. It does not contain Substances of Very High Concern (SVHC).

Canada

All components are listed on the DSL inventory. This product has been classified according to the hazard criteria of the CPR and the SDS contains all the information required by the CPR.

WHMIS Classification: NC

Australia

All components are listed on the AICS. Hazardous according to criteria of NOHSC Australia.

16. Other Information

Revision Date: March 17, 2022
Revision Number: 3
Supersedes: November 1, 2018
Indication of Changes: No changes.
Written in accordance with the provisions of OSHA 1910.1200 App D (2012) and Canada HPR (SOR/2015-17) (WHMIS 2015) (GHS format).

The information and recommendations contained herein are believed to be reliable. However, the supplier makes no warranties, express or implied, concerning the use of this product. The buyer must determine conditions of safe usage and assumes all risk and liability in handling this product.