



SECTION 1 – IDENTIFICATION

Product Name: EchoTherm Extreme
Recommended Use: Ultrasonic Couplant
Restrictions on Use: For Industrial Use Only
Operating Range: -40°F to 1250°F (-40°C to 675°C)

Manufacturer: Echo Ultrasonics® LLC
774 Marine Drive, Bellingham, WA 98225
360-671-9121 www.echoultrasonics.com
Emergency: US: 1-800-255-3924 Outside US: +1-813-248-0585

SECTION 2 – HAZARDS

General Information: **Hazard Status:** Not hazardous by OSHA HazCom 2012 Criteria
Color: Off white
Physical State: Light grease
Odor: None

Emergency Overview: **Hazards:** **Eye:** May cause slight irritation.
Skin: No adverse effects expected.

Potential Health Hazards: **Inhalation:** No adverse effects expected.
Ingestion: No adverse effects expected.
Label Elements According to Osha HazCom 2012: None

SECTION 3 – COMPOSITION/INGREDIENTS

Component	CAS #	WT %
Perfluoropolyalkylether (PFPAE)	60164-51-4	>90%
Silicone Dioxide	7631-86-9	<5%

SECTION 4 – FIRST-AID MEASURES

General Information: This product as such is not hazardous. Inhalation of thermal decomposition products which occur at temperatures over 750°F (400°C) are not expected to occur when this product is used in less than 20 grams per application (test).

	Symptoms/Effects	Treatment Recommendations
Eyes:	Irritation, discomfort	Flush with water holding eyelids apart. Get medical attention if irritation or other symptoms occur.
Skin:	None expected	Wash with soap and water.
Inhalation:	None expected below 750°F (400°C)	If exposed to excessive vapors above 750°F/400°C, remove to fresh air and get medical attention if cough or other symptoms develop.
Ingestion:	Low toxicity, unknown symptoms	Get medical attention if more than 1 oz. ingested by adult. Keep away from children and adults with dementia.

SECTION 5 – FIRE-FIGHTING MEASURES

Suitable Extinguishing Equipment: This product does not burn.
Specific Hazards from Combustion: During a fire, smoke may contain thermal decomposition products including Hydrogen Fluoride (HF), which is toxic.
Fire Fighting Procedures: Fight fire from a safe distance and wear positive pressure self-contained breathing apparatus and protective clothing.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions: Spills may be slippery. Prevent entry into spill area by unauthorized persons.
Emergency Procedures: Sprinkle inert, non-slip absorbent material onto spill.
Minimize entry of material into sewers and drainage systems.
Containment Procedures: Absorb spill with inert material (earth, clay, commercial absorbent for oil) then place into container for disposal.

SECTION 7 – HANDLING AND STORAGE

Precautions: Although this material does not present a significant skin or eye concern, skin and eye contact should be avoided as a general industrial practice. Gloves are not required, but may be desirable for repeated or long term contact. Wearing eye protection is recommended. Wash hands and contaminated skin after handling. Avoid breathing vapors from heated material above 750°F (400°C).
Recommendations: No special storage conditions are required.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Permissible Exposure Limits: None established
Engineering Controls: When used on a hot surface above 750°F (400°C), control fumes with local exhaust ventilation.
Personal Protection: **Eyes:** Use safety glasses if there is a possibility for exposure.
Skin: Wear impervious heat insulated gloves when working with hot material.
Respiratory: In restricted ventilation environments, above 800°F (426 °C), use MIOSH/MSHA approved air purifying respirator as needed to control exposure to smoke or fumes generated during use. Consult with respirator manufacturer to determine respirator selection, use, and limitations. Follow respiratory protection program requirements (OSHA 1910.134 and ANSI Z88.2) for all respirator use.
Special Requirements: None



SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Off white grease
Odor: None
Odor Threshold: No data
Solubility: Insoluble in water
pH: Neutral
Viscosity: 12-13 mPa.s
Flammable Limits: **Upper Explosive Limit:** N/A
Lower Explosive Limit: N/A
Vapor Pressure: <0.001 Torr at 25°C
Vapor Density: >1
Specific Gravity: 1.85 (water = 1)
Freezing Point: -60°F (-15°C)
Flammability: Non-flammable by WHMIS/OSHA/NOM-018-STPS 2000 Criteria
Flash Point: Unknown
Partition Coefficient: N/A
Auto-Ignition Temperature: Greater than 1300°F (704°C)
Operating range: -40°F to 1250°F (-40°C to 675°C)
Decomposition Temperature: 1.3% per 24 hours at 750°F (400°C)

SECTION 10 – STABILITY AND REACTIVITY

Reactivity: Stable
Chemical Stability: Stable
Potential Hazards, Conditions to Avoid: Product will not burn; however, in a fire or above the thermal decomposition temperature, fluorinated decomposition compounds (including Hydrogen Fluoride) are produced.
Incompatible Materials: Relatively inert

SECTION 11 – TOXICOLOGICAL INFORMATION

Likely Routes and Effects of Exposure: See section 2; Dermal ALD > 17,000 mg/kg (rabbit), oral LD 50 > 30,000 mg/kg (rat)
Immediate: See section 2
Delayed, Chronic, Symptoms: No data
Carcinogenicity: No data
Other: This substance is not expected to product toxic effects below the thermal decomposition temperature.

SECTION 12 – ECOLOGICAL INFORMATION

Toxicology Data: Oncorhynchus mykis >1000 mg/liter
Environmental Persistence/Degradation: Inert
Bioaccumulation Potential: None expected
Soil to Groundwater Motility: No data
Other Adverse Effects: No data

SECTION 13 – DISPOSAL CONSIDERATIONS

General Information: Dispose in accordance with all federal, state, and local regulations.
Physical, Chemical Properties Affecting Disposal: None
Disposal Containers, Methods: Landfill

SECTION 14 – TRANSPORT INFORMATION

UN Number and Proper Shipping Name: Not applicable
Transport Hazard Class: Not hazardous
Packing Group: Not applicable
Environmental Hazards: Not applicable
Bulk Transport Guidance: Not applicable
Special Precautions: Not restricted, not regulated, not hazardous & not dangerous to transport by air by IATA.

SECTION 15 – REGULATORY INFORMATION

Regulatory Information not included elsewhere: **TSCA Inventory:** All ingredients listed or in compliance with the inventory
Section 311 SARA Title III/CERCLA
Immediate (acute): No
Delayed (chronic): No
Fire Hazard: No
Reactive: No
Sudden Release of Pressure: No
This product does not contain chemicals which require reporting, nor listing under California Proposition 65.

SECTION 16 – OTHER INFORMATION

SDS Preparation Date: 15 January 2015 Original
Last Revision: June 13, 2017
Changes from Last Revision: Modified Emergency Contact Information
Other Information:

All information herein is provided in good faith and believed to be accurate and reliable. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ according to location. It is the buyer's/user's responsibility to ensure that this product is used in compliance with all federal, state, and local law and used as intended as an industrial nondestructive testing ultrasonic couplant.