



# XCELTHERM® SX800

## Heat Transfer Fluid

### Safety Data Sheet

Issue date: 3/28/2024

Version: 1.0

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

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## SECTION 1: Identification

### 1.1. Identification

Trade name XCELTHERM® SX800

### 1.2. Recommended use and restrictions on use

Use of the substance/mixture: Silicone based for high thermal stability and oxidative resistance at high operating temperatures up to 750°F (400°C) with a low start-up temperature of under -40°F (-40°C).

### 1.3. Supplier

Radco Industries Inc.  
CAGE Code 6ZS16  
700 Kingsland Drive  
Batavia, Illinois 60510  
United States  
T (630) 232-7966  
[www.radcoind.com](http://www.radcoind.com)

### 1.4. Emergency telephone number

Emergency number: For Chemical Emergency Call CHEMTREC 24hr/day 7days/week  
Within USA and Canada: 1-800-424-9300  
Outside USA and Canada: +1 703-741-5970  
(collect calls accepted)

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## SECTION 2: Hazard(s) identification

### 2.1. Classification of the substance or mixture

#### GHS US classification

Not classified

### 2.2. GHS Label elements, including precautionary statements

#### GHS US labeling

No labeling applicable

### 2.3. Other hazards which do not result in classification

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

**SECTION 3: Composition/Information on ingredients****3.1. Substances**

Substance type UVCB  
Name XCEL THERM® SX800

Name	Product identifier	%	GHS US classification
Polydimethylsiloxane	CAS-No.: 63148-62-9	100	Not classified

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: If you feel unwell, seek medical advice.  
First-aid measures after inhalation: Remove person to fresh air and keep comfortable for breathing.  
First-aid measures after skin contact: Wash skin with plenty of water.  
First-aid measures after eye contact: Rinse eyes with water as a precaution.  
First-aid measures after ingestion: Call a poison center/doctor/physician if you feel unwell.

**4.2. Most important symptoms and effects (acute and delayed)**

Potential Adverse human health effects and Non-toxic if swallowed (LD50 oral, rat > 5000 mg/kg). Not irritant to skin. Practically non-symptoms: toxic in contact with skin (LD50 skin > 2000 mg/kg). Practically non-toxic by inhalation (LC50 inh, rat > 5 mg/l/4h). Slightly irritant to eyes.

Symptoms/effects after inhalation: No effects known.  
Symptoms/effects after skin contact: No effects known.  
Symptoms/effects after eye contact: No effects known.  
Symptoms/effects after ingestion: No effects known.  
Chronic symptoms: No known effects from this product.

**4.3. Immediate medical attention and special treatment, if necessary**

Treat symptomatically.

**SECTION 5: Fire-fighting measures****5.1. Suitable (and unsuitable) extinguishing media**

Suitable extinguishing media: Water spray. Dry powder. Foam. Carbon dioxide.  
Unsuitable extinguishing media: Water (quick-acting extinguisher, reel); risk of puddle expansion. Water; risk of puddle expansion.

**5.2. Specific hazards arising from the chemical**

Fire hazard: DIRECT FIRE HAZARD: Not classified as flammable.  
INDIRECT FIRE HAZARD: Temperature above flashpoint: higher fire/explosion hazard.  
Reactions involving a fire hazard: see "Reactivity Hazard".

Explosion hazard: DIRECT EXPLOSION HAZARD: No direct explosion hazard.  
Hazardous decomposition products in case of fire: On burning: release of silicon oxides, carbon monoxide - carbon dioxide.

### **5.3. Special protective equipment and precautions for fire-fighters**

Precautionary measures fire: Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows.  
Firefighting instructions: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.  
Protection during firefighting: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

General measures: Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.

#### **6.1.1. For non-emergency personnel**

Protective equipment: Gloves (EN 374). protective clothing (EN 14605 / EN 13034).  
Emergency procedures: Ventilate spillage area.

#### **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: Evacuate unnecessary personnel. Stop leak if safe to do so.

### **6.2. Environmental precautions**

Avoid release to the environment.

### **6.3. Methods and material for containment and cleaning up**

For containment: Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk.  
Methods for cleaning up: Take up liquid spill into absorbent material.  
Other information: Dispose of materials or solid residues at an authorized site.

### **6.4. Reference to other sections**

For further information refer to section 13.

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## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

Additional hazards when processed: Not expected to present a significant hazard under anticipated conditions of normal use.  
Precautions for safe handling: Ensure good ventilation of the work station. Wear personal protective equipment.  
Hygiene measures: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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## 7.2. Conditions for safe storage, including any incompatibilities

Technical measures:	Keep in a cool, well-ventilated place away from heat.
Storage conditions:	Keep cool. Protect from sunlight.
Heat-ignition:	KEEP SUBSTANCE AWAY FROM: Heat sources.
Information on mixed storage:	KEEP SUBSTANCE AWAY FROM: oxidizing agents.
Storage area:	Meet the legal requirements.
Special rules on packaging:	SPECIAL REQUIREMENTS: closing. Clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.
Packaging materials:	Store always product in container of same material as original container.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

<b>XCELTHERM® SX800</b>
No additional information available
<b>Polydimethylsiloxane (63148-62-9)</b>
No additional information available

### 8.2. Appropriate engineering controls

Appropriate engineering controls:	Ensure good ventilation of the work station.
Environmental exposure controls:	Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Personal protective equipment:

Wear recommended personal protective equipment.

<b>Materials for protective clothing:</b>
Good resistance: Polyvinylchloride (PVC)
<b>Hand protection:</b>
Protective gloves
<b>Eye protection:</b>
Safety glasses
<b>Skin and body protection:</b>
Wear suitable protective clothing
<b>Respiratory protection:</b>
In case of insufficient ventilation, wear suitable respiratory equipment

**Personal protective equipment symbol(s):**



**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Physical state:	Liquid
Appearance:	Liquid.
Color:	Colourless
Odor:	Characteristic odour
Odor threshold:	No data available
pH:	No data available
Melting point:	No data available
Freezing point:	-60 °C
Boiling point:	267 °C
Critical temperature:	367 °C
Flash point:	162 °C Cleveland Open Cup Method
Relative evaporation rate (butyl acetate=1):	No data available
Flammability:	Not applicable.
Vapor pressure:	≤ 0.05 mm Hg at 20°C
Relative vapor density at 20°C:	> 1
Particle size:	Not applicable (liquid)
Relative density:	0.935 at 25°C (77°F)
Density:	936 kg/m <sup>3</sup> at 25°C (77°F)
Molecular mass:	1250 g/mol
Solubility:	Insoluble in water. Water: < 0.1 g/100ml
Partition coefficient n-octanol/water (Log Pow):	2.86 – 4.25 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method)
Auto-ignition temperature:	385 °C
Decomposition temperature:	No data available
Viscosity, kinematic:	9 – 11 mm <sup>2</sup> /s at 25°C (77°F)
Viscosity, dynamic:	No data available

Explosion limits:	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available

**9.2. Other information**

VOC content:	0 %
Other properties:	Gas/vapour heavier than air at 20°C. Slightly volatile.

**SECTION 10: Stability and reactivity****10.1. Reactivity**

Reacts with (strong) oxidizers.

**10.2. Chemical stability**

Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

No dangerous reactions known under normal conditions of use.

**10.4. Conditions to avoid**

None under recommended storage and handling conditions (see section 7).

**10.5. Incompatible materials**

No additional information available

**10.6. Hazardous decomposition products**

On heating: release of toxic/corrosive/combustible gases/vapours (formaldehyde).

**SECTION 11: Toxicological information****11.1. Information on toxicological effects**

Acute toxicity (oral):	Not classified
Acute toxicity (dermal):	Not classified
Acute toxicity (inhalation):	Not classified
Skin corrosion/irritation:	Not classified
Carcinogenicity:	Not classified
Aspiration hazard:	Not classified
Viscosity, kinematic:	9 – 11 mm <sup>2</sup> /s at 25°C (77°F)
Potential Adverse human health effects and symptoms:	Non-toxic if swallowed (LD50 oral, rat > 5000 mg/kg). Not irritant to skin. Practically non-toxic in contact with skin (LD50 skin > 2000 mg/kg). Practically non-toxic by inhalation (LC50 inh, rat > 5 mg/l/4h). Slightly irritant to eyes.
Symptoms/effects after inhalation:	No effects known.
Symptoms/effects after skin contact:	No effects known.
Symptoms/effects after eye contact:	No effects known.
Symptoms/effects after ingestion:	No effects known.
Chronic symptoms:	No known effects from this product.

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STOT-single exposure:	Not classified
STOT-repeated exposure:	Not classified
Reproductive toxicity:	Not classified

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LD50 oral rat:	> 5000 mg/kg body weight (Rat, Experimental value, Oral)
LD50 dermal rabbit:	> 2000 mg/kg body weight (Rabbit, Similar product, Dermal)
LC50 Inhalation - Rat:	> 11.582 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, (maximum achievable concentration), Inhalation (aerosol), 14 day(s))

**Polydimethylsiloxane (63148-62-9)**

LD50 oral rat:	> 5000 mg/kg body weight (Rat, Experimental value, Oral)
LD50 dermal rabbit:	> 2000 mg/kg body weight (Rabbit, Similar product, Dermal)
LC50 Inhalation - Rat:	> 11.582 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, (maximum achievable concentration), Inhalation (aerosol), 14 day(s))

**Polydimethylsiloxane (63148-62-9)**

Serious eye damage/irritation:	Not classified
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**Polydimethylsiloxane (63148-62-9)**

Respiratory or skin sensitization:	Not classified
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**Polydimethylsiloxane (63148-62-9)**

Germ cell mutagenicity:	Not classified
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**SECTION 12: Ecological information****12.1. Toxicity**

Ecology - general:	The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
Ecology - air:	Not included in the list of substances which may contribute to the greenhouse effect (IPCC). Not included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014). Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).
Ecology - water:	Not harmful to fishes. Forming sediments in water. Not harmful to algae. Not harmful to bacteria.

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LC50 - Fish [1]:	> 1000 mg/l (Pisces, Literature study, Nominal concentration)
EC50 - Other aquatic organisms [1]:	> 1020 mg/l (96 h, Mytilus edulis, Literature study)
ErC50 algae:	> 100 mg/l (72 h, Skeletonema costatum, Literature study, Nominal concentration)

**Polydimethylsiloxane (63148-62-9)**

LC50 - Fish [1]:	> 1000 mg/l (Pisces, Literature study, Nominal concentration)
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Polydimethylsiloxane (63148-62-9)	
EC50 - Other aquatic organisms [1]:	> 1020 mg/l (96 h, Mytilus edulis, Literature study)
ErC50 algae:	> 100 mg/l (72 h, Skeletonema costatum, Literature study, Nominal concentration)

### 12.2. Persistence and degradability

XCEL THERM® SX800	
Persistence and degradability:	Biodegradable in water.

Polydimethylsiloxane (63148-62-9)	
Persistence and degradability:	Biodegradable in water.

### 12.3. Bioaccumulative potential

XCEL THERM® SX800	
Partition coefficient n-octanol/water (Log Pow):	2.86 – 4.25 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method)
Bioaccumulative potential:	Not bioaccumulative.

Polydimethylsiloxane (63148-62-9)	
Partition coefficient n-octanol/water (Log Pow):	2.86 – 4.25 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method)
Bioaccumulative potential:	Not bioaccumulative.

### 12.4. Mobility in soil

XCEL THERM® SX800	
Ecology - soil:	Adsorbs into the soil.

Polydimethylsiloxane (63148-62-9)	
Ecology - soil:	Adsorbs into the soil.

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Regional waste regulation:	Disposal must be done according to official regulations.
Waste treatment methods:	Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations:	Disposal must be done according to official regulations.
Product/Packaging disposal recommendations:	Disposal must be done according to official regulations.
Additional information:	Do not re-use empty containers.



**SECTION 14: Transport information**

In accordance with DOT / TDG / IMDG / IATA / ICAO / ADN / RID / ADG

**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

**IATA**

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

**IATA**

No data available

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

**SECTION 15: Regulatory information**

**15.1. US Federal regulations**

Commercial status of components according to the United States Environmental Protection Agency’s Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
Polydimethylsiloxane	63148-62-9	Present	Active	XU

This product or mixture is not known to 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**

<b>Polydimethylsiloxane (63148-62-9)</b>
Listed on the Canadian DSL (Domestic Substances List)

**EU-Regulations**

No additional information available

**National regulations**

<b>Polydimethylsiloxane (63148-62-9)</b>
Listed on INSQ (Mexican National Inventory of Chemical Substances)

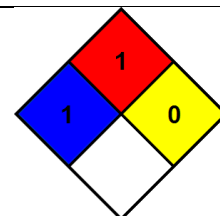
**15.3. US State regulations**

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

**SECTION 16: Other information**

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

NFPA health hazard 1 - Materials that, under emergency conditions, can cause significant irritation.  
 NFPA fire hazard 1 - Materials that must be preheated before ignition can occur.  
 NFPA reactivity 0 - Material that in themselves are normally stable, even under fire conditions.



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Hazard Rating	
Health	1 Slight Hazard - Irritation or minor reversible injury possible
Flammability	1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)
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.

This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any particular process or for any particular purpose. Such information stated is to the best of Radco's knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made to its accuracy, reliability, or completeness, purchasers, users and distributors are not relying on any promise, representation, or recommendation made by Radco, and Radco does not accept liability for any loss or damage that may occur from the use of this information. Final determination of suitability of any material is the sole responsibility of the user. All material should be used with caution to guard against unknown hazards. Although certain hazards are described herein, Radco does not guarantee that these are the only hazards that exist.