



MATERIAL SAFETY DATA SHEET

I. PRODUCT AND COMPANY IDENTIFICATION

Manufacturer Radco Industries, Inc., PO Box 305 LaFox, IL 60147 USA Emergency Phone: (630) 232-7966 Website: www.Xceltherm.com Product Name: XCEL THERM® LV-1 Heat Transfer Fluid Effective Date: 2/9/1999 Revision Date: 9/15/2010	Emergency Phone Numbers: For chemical emergency, spill, leak, fire exposure, accident or medical emergency, call: CHEMTREC North America 1-800-424-9300 International +1 703-527-3887 For shipping emergency or off-hours rush orders call: 1-630-232-7966 or 1-630-336-6728
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II. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENTS	CAS#	CONCENTRATION
Diphenyl Oxide (phenyl ether)	101-84-8	> 50%
1,1 – Diphenylethane	612-00-0	< 50.0 %
1,2 – Diphenylmethane	103-29-7	< 1%
Diphenylmethane	101-81-5	<1%

Note

Not a Hazardous Material for DOT shipping.

No component of this product is currently listed as a potential carcinogen by IARC, NTP, or OSHA.

III. HEALTH HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

Direct contact may cause skin and eye irritation.

Eye

May cause transient eye irritation (tears, blurred vision, redness).

Skin Contact

Short single exposure not likely to result in the material being absorbed through the skin in harmful amount. Prolonged exposure may cause skin irritation. The dermal LD50 has not been determined.

Ingestion

Single dose oral toxicity is low. The LD50 for rats is >2000mg/kg. Ingestion of large amounts may cause headache, vomiting, and diarrhea. If aspirated (liquid enters the lung), may cause chemical pneumonia, a condition caused by petroleum and petroleum-like solvents.

Inhalation

Excessive exposure may cause central and peripheral nervous system depression, with possible effects such as: increase in frequency of respiration, headache, dizziness, lack of coordination, nausea, loss of appetite, and loss of consciousness.

IV. FIRST AID MEASURES

Ingestion

DO NOT induce vomiting. Seek medical attention immediately.

Skin

Remove all contaminated clothing. Immediately wash off affected area with soap and water. Wash contaminated clothing before reuse.



IV. FIRST AID MEASURES continued

Inhalation

Remove to fresh air if effects occur. Call physician immediately.

Eye contact

Flush immediately with water for at least 15 minutes.

V. FIRE-FIGHTING MEASURES

Flash point (COC): $\geq 122\text{ }^{\circ}\text{C}$ (251 $^{\circ}\text{F}$)

Fire point (COC): $\geq 128\text{ }^{\circ}\text{C}$ (263 $^{\circ}\text{F}$)

Autoignition Temperature: $\geq 1120\text{ }^{\circ}\text{C}$ (604 $^{\circ}\text{F}$)

Flammable limits

LFL: 0.74%

UFL: 2.28%

NFPA Classification

Health: 1	Flammability: 1	Reactivity: 0	Special provisions: none
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EXTINGUISHING MEDIA

- Water fog
- Foam
- CO₂
- dry chemical

Fire Fighting Procedures

Firefighters should wear normal protective equipment and positive-pressure self-contained breathing apparatus. Water or foam may cause frothing below the surface of the liquid and may turn to steam. Water can be used to cool fire-exposed containers, to protect personnel, and to disperse vapors and spills.

Usual Fire Fighting Procedure

COMBUSTIBLE, same as an ordinary mineral lubricating oil.

VI. ENVIRONMENTAL AND DISPOSAL INFORMATION

Action to take for spills/leaks

Dike to contain spill. Recover if possible. Small spills can be covered with absorbent material.

Disposal Method

Waste/Off-specification product should be reprocessed, incinerated or disposed of in accordance with applicable federal, state and local regulations. This material should not be dumped, spilled, rinsed, or washed into sewers or public waterways.

VII. HANDLING AND STORAGE

Storage requirements

Store in cool, well ventilated area, far from open flames and areas where danger of fire exists.

VIII. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation

Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

**VIII. EXPOSURE CONTROLS / PERSONAL PROTECTION continued****Exposure limits**

COMPONENT	TYPE	VALUE	REMARK
Diphenyl oxide (phenyl ether)	ACGIH TLV	1 ppm	
	STEL (mist), ACGIH	2 ppm	
	OSHA PEL	1 ppm	

Respiratory protection

Avoid breathing vapor or mist. Use NIOSH/MSHA approved equipment when airborne exposure limits are exceeded. Full face-shield equipment is recommended and, if used, replaces need for full face shield and/or chemical goggles. Consult respirator manufacturer to determine appropriate type equipment for given application. The respirator use limitations specified by NIOSH/MSHA or the manufacturer must be observed. High airborne concentrations may require use of self-contained breathing apparatus. Respiratory protection programs must be in compliance with 29 CFR 1910.134.

Skin protection

For brief contact, no precautions other than clean body-covering clothing should be needed. Use impervious gloves when prolonged or frequently repeated contact could occur, such as during vent header maintenance. Consult glove manufacturer to determine appropriate type glove for given application.

Eye protection

Wear chemical goggles/safety glasses and have eye baths available where there is significant potential for eye contact.

IX. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and color:	Water white liquid
Odor:	Slight aromatic odor
Boiling point at 760mmHg:	≥ 258°C, 496°F
Crystallizing point:	≥ 7.2°C, 45°F
Density at 25°C (77°F):	1059 kg/m ³ (8.84 pounds/gallon)
Specific gravity at 25°C (77°F):	1.060
Average molecular weight:	171.9

X. REACTIVITY INFORMATION**Stability**

Stable.

Incompatible materials

Exposure to materials which are highly oxidizing should be avoided.

Hazardous Polymerization

Does not occur.

XI. TRANSPORT INFORMATION

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

US DOT Classification

Not a Hazardous Material for DOT shipping.



XII. REGULATORY INFORMATION

SARA 313 Information

This product does not contain a substance 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.

CERCLA/SUPERFUND

This product contains no Reportable Quantity (RQ) substances that are currently listed under 40 CFR Part 302.4.

Toxic Substances Control Act (TSCA)

The ingredients of this product are all listed on the TSCA Inventory list.

California (Proposition 65)

Not Applicable.

Workplace Hazard Identification System

Health: 2	Fire: 1	Reactivity: 0
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CANADIAN REGULATIONS

WHMIS Information

The Canadian Workplace Hazardous Materials Information System (WHMIS) Classification for this product is: D2B.

Canadian TDG information

For guidance, the Transportation of Dangerous Goods Classification for this product is: Not regulated.

The information herein is given in good faith, but no warranty, expressed or implied, is made. Consult Radco Industries, Inc. for further information.

WARNING: "Empty" containers retain residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition; they may explode and cause injury or death. Do not attempt to clean since residue is difficult to remove and even a trace of remaining material constitutes as explosive hazard. "Empty" drums should be completely drained, properly bunged, and promptly returned to a drum recycler. All other containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

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