XCELTHERM® DCT

Safety Data Sheet

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according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

SECTION 1: Identification

1.1. Identification

Trade name XCELTHERM® DCT

1.2. Recommended use and restrictions on use

Use of the substance/mixture: A high performing, low cost hot oil heat transfer fluid formulated for the die casting and injection molding industries.Xceltherm®DCT has excellent heat transfer efficiency and an extended operational life due to its inherent thermal stability. For use up to 600°F (315°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

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)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Aspiration hazard, Category 1	H304	May be fatal if swallowed and enters airways.

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US):

Signal word (GHS US): Danger
Hazard statements (GHS US): H304 - May be fatal if swallowed and enters airways
Precautionary statements (GHS US): P301+P310 - If swallowed: Immediately call a doctor, a POISON CENTER.
P331 - Do NOT induce vomiting.

P405 - Store locked up.
P501 - Dispose of contents and container to an approved waste disposal plant.

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	Product identifier	%	GHS US classification
White mineral oil (petroleum) (Main constituent)	CAS-No.: 8042-47-5	> 90	Asp. Tox. 1, H304

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: Call a physician immediately.
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: Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects after inhalation: None under normal conditions.
Symptoms/effects after skin contact: None under normal conditions.
Symptoms/effects after eye contact: None under normal conditions.
Symptoms/effects after ingestion: Risk of lung edema.

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: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard: No fire hazard.

Explosion hazard:	No direct explosion hazard.
Hazardous decomposition products in case of fire:	Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

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.

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:	Wear recommended personal protective equipment.
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.

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.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures:	Keep in a cool, well-ventilated place away from heat.
Storage conditions:	Store locked up.

Packaging materials: Store always product in container of same material as original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

XCELTHERM® DCT (8042-47-5)	
No additional information available	
USA - ACGIH - Occupational Exposure Limits	
Local name	Mineral oil, excluding metal working fluids Pure, highly and severely refined
ACGIH OEL TWA	5 mg/m³ (I - Inhalable particulate matter)
Remark (ACGIH)	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2024

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.

Hand protection:
Protective gloves

Eye protection:
Safety glasses

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
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:	Colorless liquid.
Color:	Colorless
Odor:	odorless
Odor threshold:	No data available
pH:	Not applicable
Melting point:	Not applicable
Freezing point:	-15 (Pour point)
Boiling point:	360 (218 – 800) °C (Normal Boiling Point, 10% fraction)
Flash point:	177 °C (Cleveland Open Cup Method)
Relative evaporation rate (butyl acetate=1):	No data available
Flammability:	Not applicable.
Vapor pressure:	< 0.01 hPa at 20°C
Relative vapor density at 20°C:	No data available
Relative density:	0.85 at 15.6°C (Water = 1)
Molecular mass:	≈ 350 g/mol
Solubility:	insoluble in water.
Partition coefficient n-octanol/water (Log Pow):	> 4
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity, kinematic:	15 – 18 mm^2/s at 40°C (104°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

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

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

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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 pH: Not applicable
Carcinogenicity:	Not classified
Aspiration hazard:	May be fatal if swallowed and enters airways.
Viscosity, kinematic:	15 – 18 mm²/s at 40°C (104°F)
Symptoms/effects after inhalation:	None under normal conditions.
Symptoms/effects after skin contact:	None under normal conditions.
Symptoms/effects after eye contact:	None under normal conditions.
Symptoms/effects after ingestion:	Risk of lung edema.
STOT-single exposure:	Not classified
STOT-repeated exposure:	Not classified
Reproductive toxicity:	Not classified

XCELTHERM® DCT (8042-47-5)	
LD50 oral rat:	> 5000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rabbit:	> 2000 mg/kg body weight (OECD 402 method)
LC50 Inhalation - Rat:	> 5 mg/l (OECD 403 method)

XCELTHERM® DCT (8042-47-5)	
NOAEL (oral,rat,90 days):	≥ 1200 mg/kg body weight Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

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.

12.2. Persistence and degradability

XCELTHERM® DCT (8042-47-5)	
Persistence and degradability:	Not readily biodegradable in the soil. Not readily biodegradable in water.

12.3. Bioaccumulative potential

XCELTHERM® DCT (8042-47-5)	
Partition coefficient n-octanol/water (Log Pow):	> 4

12.4. Mobility in soil

No additional information available

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

DOT	TDG	IMDG	IATA
14.1. UN number			
Not regulated for transport			
14.2. Proper Shipping Name			
Not applicable	Not applicable	Not applicable	Not applicable
Transport document description			
Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)			
Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable

DOT	TDG	IMDG	IATA
14.5. Environmental hazards			
Not applicable	Not applicable	Not applicable	Not applicable
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

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

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

XCELTHERM® DCT (8042-47-5)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

XCELTHERM® DCT (8042-47-5)
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 29 CFR § 1910.1200, Hazard Communication Standard (HCS)
Revision date: 01/15/2025

Full text of hazard classes and H-statements	
H304	May be fatal if swallowed and enters airways

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.