

## Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g), Rev. 2012 and GHS Rev 03

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Product form: Mixture  
Trade name: Duratherm XLT-50  
Product code: Duratherm XLT-50  
Recommended application: Heat Transfer Fluid

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

##### Relevant identified uses of the substance or mixture:

Heat Transfer Fluid

##### Uses advised against:

No information available at present

#### 1.3 Details of the supplier of the safety data sheet

Duratherm  
5268 Highway Avenue, Jacksonville, FL 32254  
Telephone: 1-905-984-6677  
Qualified person's e-mail address: info@durathermfluids.com

#### 1.4 Emergency telephone number:

Tel.: 1-905-984-6677

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Combustible Liq 4 – H227, Asp. Haz 1 – H304, Skin Irrit 2 – H315, Skin Sens 1 – H317, Aqu. Chron. 1: H410

#### 2.2 Label elements

##### Labeling according to Regulation (EC) No 1272/2008 [CLP/GHS]

##### Product Identifier:

Hazard components for labeling: Terpene – CAS# 5989-27-5  
Hazard pictograms: GHS07, GHS08, GHS09



Signal word:

Warning

##### Hazard statements

H227 Combustible liquid and vapor  
H304 May be fatal if swallowed and enters airways  
H315 Causes skin irritation  
H317 May cause an allergic skin reaction  
H410 Very toxic to aquatic life with long lasting effects

##### Precautionary Statements

P210 Keep away from heat, sparks, open flames, and hot surfaces. No smoking  
P273 Avoid release to the environment  
P280 Wear protective gloves  
P301/310/331 IF SWALLOWED. Immediately call a POISON CONTROL CENTRE. Do not induce vomiting  
P302/P352 IF ON SKIN: Wash with plenty of water  
P332/P313 If eye irritation persists seek medical attention



P501 Dispose of contents and their containers in accordance with regional, national and international regulations

**Other hazards**

Other Hazards: None known

**SECTION 3: Composition/information on ingredients**

**3.1 Substances**

Not applicable

**3.2 Mixtures**

Chemical Characterization: Mixture  
 Classification according to GHS: GHS07, GHS08, GHS09  
 Dangerous Components: Terpene CAS#: 5989-27-5

Component Name	Identification	Classification according to GHS	%
Hydrocarbon Base Fluids	CAS #: 8042-47-5	Not classified	35-55%
Terpene	CAS #: 5989-27-5	GHS07, GHS08, GHS09  Comb Liq 4 – H227 Asp. Haz 1 – H304 Skin Irrit 2 – H315 Skin Sens 1 – H317 Aqu. Chron. 1: H410	35-55%
Proprietary Additives	Trade secret	Not classified	5-10%

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

Following Inhalation: Supply person with fresh air and consult doctor according to symptoms.  
 Following Skin contact: Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.  
 Following Eye contact: Remove contact lenses. Wash thoroughly for several minutes using copious water. Seek medical help if necessary.  
 Following Ingestion: Rinse the mouth thoroughly with water. Do not induce vomiting. Consult doctor immediately.  
 Self- Protection of the First Aider: When giving first aid follow standard first aid protocol.

**4.2 Most important symptoms and effects, both acute and delayed**

**Symptoms/injuries after inhalation**

May be harmful by inhalation if exposure to vapor, mists or fumes resulting from thermal decomposition of the product

**Symptoms/injuries after skin contact**

Unlikely to cause harm to skin on brief or occasional contact, but prolonged or repeated exposure may lead to dermatitis.

**Symptoms/injuries after eye contact**

Unlikely to cause more than transient stinging or redness if accidental eye contact occurs

**Symptoms/injuries after ingestion**

Unlikely to cause harm if accidentally swallowed in small doses, though larger quantities may cause nausea and diarrhea

**4.3 Indication of any immediate medical attention and special treatment needed**

Treat symptomatically

**SECTION 5: Firefighting measures**

**5.1 Extinguishing Media**

**Suitable extinguishing media:** Water jet spray/foam/CO2/dry extinguisher  
**Unsuitable extinguishing media:** High volume water jet

## 5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop: Oxides of carbon, toxic gases

## 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fume use protective respirator with independent air supply. According to size of fire use full protection, if necessary. Cool container at risk with water. Dispose of contaminated extinction water according to official regulations.

## SECTION 6: Accidental release measures

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

#### Non-emergency personnel:

Ensure sufficient supply of air  
Avoid contact with eyes or skin

#### Emergency responders

Wear safety glasses, goggles or face shield

### 6.2 Environmental precautions:

If leakage occurs, dam spillage and resolve leaks as soon as possible. Prevent fluid from entering drainage systems. If fluid accidentally enters drainage system alert authorities.

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

**For Containment:** Contain spill by berm usage and blocking flow with absorbent material.

**For clean up:** Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth) and dispose of according to Section 13.

### 6.4 Reference to other sections

See section 7 for information on safe handling, see Section 8 for information on personal protection equipment, see Section 13 for disposal information

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Protective Measures:

Precautions for safe handling:	Avoid contact with eyes or skin. Do not breathe vapors or mists
Information about protection against explosions or fires:	Take measure to prevent the buildup of electrostatic discharge
Aerosol and dust generation preventions:	Not applicable
Environmental precautions:	Prevent from entering drainage systems

#### Advice on general occupational hygiene

General hygiene measures for the handling of chemicals are applicable  
Wash hands before breaks and at end of work  
Keep away from food, drink and animal feed  
Remove contaminated clothing and protective equipment before entering areas in which food is consumed

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

#### Technical measures and storage conditions:

Packaging Materials:	Store product closed and only in original packing.
Requirements for storage rooms and vessels:	Store in a well-ventilated, cool and dry place.

#### Hints on storage assembly

Storage Class:	No data available
Materials to avoid:	Do not store in plastic containers for extended periods.

### 7.3 Specific end use(s)

No information available at present.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**Occupational exposure limits:** D-Limonene 20 ppm ACGIH; 50 ppm OSHA

### 8.2 Exposure controls:

**8.2.1 Appropriate engineering controls:** Contain with oil absorbing material (oil dry). Remove oil absorbing material and dispose lawfully

#### 8.2.2 Personal protective equipment:

**Eye protection:**  
 Suitable eye protection Eye protection necessary where liquid could be splashed or sprayed

**Skin Protection:**  
**Hand protection:** In case of repeated or prolonged contact wear gloves and use moisturizing skin cream

**Body Protection:** PVC, neoprene, or nitrile gloves

**Respiratory protection:** Normally not required in areas with adequate ventilation. In areas with poor ventilation or in the case of likely misting use appropriate respiratory equipment

**Thermal Hazards:** No thermal hazards

#### 8.2.3 Environmental exposure controls:

See section 6

**Consumer exposure controls:** PVC gloves. Neoprene or nitrile rubber gloves

## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

Physical state:	Liquid
Color:	Light yellow, clear
Odor:	Characteristic
Odor threshold:	Not determined
pH-value:	Not determined
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	Not determined
Flash Point ASTM D92 (COC):	>150 <sup>o</sup> F (>84 <sup>o</sup> C)
Evaporation Rate:	NA
Flammability (solid, gas)	NA
Lower explosive limit:	Not determined
Upper explosive limit:	Not determined
Density @ 20 <sup>o</sup> C:	0.85-0.87 g/ml
Bulk density:	NA
Solubility(ies):	Not determined
Water solubility:	Insoluble
Partition coefficient (n-octanol/water)	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	1.5 cSt @ 40 <sup>o</sup> C
Explosive properties	NA
Oxidizing properties:	Not determined

### 9.2 Other information



Miscibility: Not determined  
 Fat solubility / solvent: Not determined  
 Conductivity: Not determined  
 Surface tension: Not determined  
 Solvents content: Not applicable

Physical Hazards: Not applicable

### SECTION 10: Stability and reactivity

**10.1 Reactivity:** Stable under normal conditions  
**10.2 Chemical Stability:** Stable under normal conditions  
**10.3 Possibility of hazardous reactions:** See section 2  
**10.4 Conditions to avoid:** See section 7. Avoid contact with strong oxidizing agents  
**10.4 Incompatible materials:** Strong oxidizing agents, acids  
**10.5 Incompatible Materials:** See section 7 Avoid contact with strong oxidizing agents  
**10.6 Hazardous decomposition products:** See section 5.2 no decomposition when used as directed

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

11.1.1 **Substances:** Not applicable

#### 11.1.2 Mixtures:

Acute oral toxicity: D-Limonene: LD50 rat: 4,400 mg/kg  
 Acute inhalation toxicity: D-Limonene: LD50 rat: No available data  
 Acute dermal toxicity: D-Limonene: LD50 rabbit: > 5,000 mg/kg  
 Irritation: Not classified – Unlikely to cause harm to skin with brief contact, long term contact may cause dermatitis  
 Corrosivity: Not classified  
 Eye damage/irritation: Liquid in the eyes can be irritating, causing tearing and redness.  
 Sensitization: May cause slight redness. Prolonged or repeated contact may cause drying of the skin.  
 Repeated dose toxicity: Not classified  
 Mutagenicity: Not classified  
 Carcinogenicity: Not classified  
 Reproductive toxicity: Not classified

Other information: No further information available

### SECTION 12: Ecological information

DURATHERM XLT-50					
12.1 Toxicity/effect	Endpoint	Value	Unit	Organism	Notes
Toxicity to fish:	LC50	>0.1 -1	mg/L	Trout	
Toxicity to daphnia:					n.d.a.
Toxicity to algae:					n.d.a.
12.2 Persistence and degradability:					n.d.a.
12.3 Bio-accumulative potential:					n.d.a.
12.4 Mobility in soil:					n.d.a.
12.5 Results of PBT and					n.d.a.

vPvB assessment:					
12.6 Other adverse effects:					n.d.a.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

**Product/Packaging disposal:**

Soaked polluted cloths, paper or other organic materials represent a fire hazard and should be controlled, collected and disposed of.

**Waste Codes/ waste designations according to EWC / AVV:**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**Waste treatment options:** See section 6.2

**Other disposal recommendations:**

For contaminated packing material  
 Pay attention to local and national official regulations  
 Empty container completely.  
 Untamminated packaging can be recycled.  
 Dispose of packaging that cannot be cleaned in the same manner as the substance.  
 Do not perforate, cut up or weld un-cleaned container.

## SECTION 14: Transport information

**14.1 UN number**

US DOT/ADR/RID/AND(R)/IATA/ICAO:

UN2319 (primary), UN1169 (alternate), UN1993

**14.2 UN proper shipping name:**

DOT, ADR, ADN, IMDG, IATA:

TERPENE HYDROCARBONS, N.O.S.

**14.3 Transport hazard class(es)**

DOT, ADR, ADN, IMDG, IATA:

4 – Combustible Liquid

**Hazard label(s):**



**14.4 Packaging Group**

DOT, ADR, IMDG, IATA:

III

**14.5 Environmental hazards**

Marine Pollutant:

Yes

**14.6 Special precautions for user:**

EMS Number: F-E, S-E

**14.7 Transport in bulk according to Annex II of MARPOL and IB Code UN Model Regulation**

## SECTION 15: Regulatory information

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

**15.1.1 EU regulations**

SARA Hazards

No SARA Hazards

TSCA (Toxic Substances Control Act):

Terpene – CAS# 5989-27-5

All chemical substances in this mixture are included on or are exempted from listing on the TSCA Inventory for Chemical Substances

Proposition 65

Based on available information this product does not contain any components or chemicals currently known to the State of



California to cause cancer, birth defects or reproductive harm at levels which would be subject to Proposition 65

## 15.2 Chemical Safety Assessment:

Country	Inventory Name/Abbreviation	Status
Australia	Australian Inventory of Chemical Substances (AICS)	All components are in compliance with chemical notification requirements in Australia
Canada	Domestic Substances List (DSL/NDSL)	All components are in compliance with the Canadian EPA and are on the DSL
China	Inventory of Existing Chemicals and Substances (IECSC)	All components in this mixture are listed on the IECSC
EU	REACH	Reach compliance information available on request. Contact <a href="mailto:info@durathermfluids.com">info@durathermfluids.com</a>
Japan	Existing and New Chemical Substances Inventory (ENCS)	All components in this mixture are in compliance with the chemical notification requirements of Japan
Korea	Existing Chemical List (ECL)	All components in this mixture are in compliance with the chemical notification requirements of the Republic of Korea
New Zealand	New Zealand Inventory of Chemicals (NZIoC)	All components in this mixture are in compliance with the chemical notification requirements of the country of New Zealand
Philippines	Philippines Inventory of Chemical and Chemical Substances (PICCS)	All components in this mixture are in compliance with the chemical notification requirements of the country of the Philippines
Taiwan	Toxic Chemical Substances Control Act (TCSCA)	All components in this mixture are in compliance with the chemical notification requirements of the country of Taiwan
USA	Toxic Substances Control Act (TCSA)	See section 15.1

## SECTION 16: Other information

### 16.1 Indication of changes

MSDS revision date 2017 05 10

### 16.2 Abbreviations and acronyms

#### Any abbreviations and acronyms used in this document:

AC	Article Categories
acc., acc. to	according, according to
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
Art., Art. no.	Article number
ATE	Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)
BOD	Biochemical oxygen demand
CAS	Chemical Abstracts Service
CEC	Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants
CLP	Classification, Labeling and Packaging (REGULATION (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures)
CTFA	Cosmetic, Toiletry, and Fragrance Association
e.g.	for example (abbreviation of Latin 'exempli gratia'), for instance
EC	European Community
ECHA	European Chemicals Agency
EEA	European Economic Area
EEC	European Economic Community
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EN	European Norms
EPA	United States Environmental Protection Agency (United States of America)
ERC	Environmental Release Categories
ES	Exposure scenario
Fax.	Fax number
gen.	general
GHS	Globally Harmonized System of Classification and Labelling of Chemicals



HMIS	Hazardous Material Identification System
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
IBC (Code)	International Bulk Chemical (Code)
IC	Inhibitory concentration
LC	lethal concentration
LC50	lethal concentration 50 percent kill
LD50	Lethal Dose, 50% kill
n.a.	not applicable
n.av.	not available
n.c.	not checked
n.d.a.	no data available
NFPA	National Fire Protection Association
ppm	parts per million
UN RTDG	United Nations Recommendations on the Transport of Dangerous Goods
VOC	Volatile organic compounds
WHO	World Health Organization
wwt	wet weight

### 16.3 Further Information

#### Classification system

NFPA Rating: Health: 1, Fire:2, Reactivity:0

HMIS Rating: Health: 1, Fire: 2, Reactivity:0

These statements were made by:

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