

## Safety Data Sheet (SDS)

In accordance with the Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice (Safe Work Australia, 2011) and GHS Rev (07)

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

#### Product identifier

Product form: Mixture  
Trade name: Duratherm 450FG  
Product code: Duratherm 450FG  
Recommended application: Heat Transfer Fluid

#### Importer/Supplier of the safety data sheet

Heat Systems Group Pty Ltd  
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Campbellfield, Victoria, 3061  
Australia  
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**Emergency telephone number:** +61 423 505 938 (Australia only)

### SECTION 2: Hazards identification

#### Classification of the substance or mixture

Asp. Haz 1 – H304

#### Label elements

GHS label element: This product is classified and labeled according to the Globally Harmonized System (GHS)  
Hazard pictograms: GHS08  
Signal word: Danger



#### Hazard Statements:

H304

May be fatal if swallowed and enters airways

#### Precautionary Statements

Response:

IF SWALLOWED. Immediately call a POISON CONTROL CENTRE. Do not induce vomiting.

Storage:

Store locked up.

Disposal:

Dispose of contents/container in accordance with applicable regional, national and local laws and regulations.

### SECTION 3: Composition/information on ingredients

#### 3.1 Substance

Not applicable

#### 3.2 Mixture

Chemical Characterization: Mixture  
Classification according to GHS: GHS08  
Dangerous Components: Hydrocarbon, <22 cSt

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Valid from: 01/01/2022  
DURATHERM 450FG



**DURATHERM**  
Heat Transfer Fluids

Component Name	Identification	Classification according to GHS	%
Hydrocarbon	CAS #: 8042-47-5 CAS #: 64742-47-8	Not classified GHS08 Asp. Haz 1 – H304	>60 30-60
Proprietary Additives	Trade Secret		<10

#### SECTION 4: First aid measures

##### Description of first aid measures

Inhalation:	Supply person with fresh air and consult doctor according to symptoms.
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.
Eye contact	Remove contact lenses. Wash thoroughly for several minutes using copious water. Seek medical help if necessary.
Ingestion	Rinse the mouth thoroughly with water. Do not induce vomiting. Consult doctor immediately.

##### Indication of any immediate medical attention and special treatment needed

Treat symptomatically

#### SECTION 5: Firefighting measures

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

##### Special hazards arising from the substance or mixture

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

##### 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

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

Personal precautions protective equipment:	Not required
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

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

Soak up with absorbent material (e.g. universal binding agent, oil-dry, sand, diatomaceous earth) and dispose in accordance with local regulations

##### 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

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

Precautions for safe handling:	No special measures required
Information about protection against explosions or fires:	No special measures required
Requirements to be met by storerooms:	Store in a cool dry place
General guidelines:	Ensure good ventilation; avoid contact with eyes or skin

##### Notes on general hygiene measures at the workplace

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

## SECTION 8: Exposure controls/personal protection

### Control parameters

Source	Material	TWA (mg/m <sup>3</sup> )
Australia Exposure Standards	Hydrocarbon, 8042-47-5	5
Australia Exposure Standards	Hydrocarbon, 64742-47-8	n/a

Appropriate engineering controls:	Contain with oil absorbing material (oil dry). Remove oil absorbing material and dispose lawfully
<b>Personal protective equipment:</b>	
Hand protection:	PVC, neoprene, or nitrile gloves. Gloves should be replaced immediately if damaged or worn
Eye protection:	Eye protection necessary where liquid could be splashed or sprayed
Materials for protective clothing:	PVC, neoprene, or nitrile gloves
Hand protection:	In case of repeated or prolonged contact wear gloves and use moisturizing skin cream
Respiratory protection:	In areas with poor ventilation or in the case of likely misting use appropriate respiratory equipment
Environmental exposure controls:	See section 12
Consumer exposure controls:	PVC gloves. Neoprene or nitrile rubber gloves
Other:	Wash hands thoroughly after exposure. Do not eat drink or smoke during use. Wash contaminated clothing before use

## 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:	>430°F (>221°C)
Flash Point ASTM D92 (COC):	>290°F (>143°C)
Evaporation Rate:	NA
Flammability (solid, gas)	NA
Lower explosive limit:	Not determined
Upper explosive limit:	Not determined
Density @ 20°C:	0.83-0.86 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:	8.25 cSt @ 40°C
Explosive properties	NA
Oxidizing properties:	Not determined

### Other information

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

## SECTION 10: Stability and reactivity

Reactivity:	Stable under normal conditions
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Chemical Stability:	Stable under normal conditions
Possibility of hazardous reactions:	No dangerous reactions known
Conditions to avoid:	See section 7
Incompatible materials:	Strong oxidizing agents, acids
Hazardous decomposition products:	No dangerous decomposition products known

### SECTION 11: Toxicological information

Possibly more information on health effects, see Section 2 (classification).

Acute toxicity: Not Classified

DURATHERM 450FG					
Toxicity/effect	Endpoint	Value	Unit	Organism	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat	
Acute toxicity, by inhalation:	LD50	>2500	mg/kg/ 4hr	Rat	

Skin corrosion/irritation:	Not classified – Unlikely to cause harm to skin with brief contact, long term contact may cause dermatitis
Serious eye damage/irritation:	Not classified
Respiratory or skin sensitization:	Not classified
Repeated does toxicity:	Not classified
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified
Other information:	No further information available

### SECTION 12: Ecological information

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Toxicity/effect	Endpoint	Value	Unit	Organism	Notes
Toxicity to fish:	LD50	>100,000	mg/kg /96hr	Trout	
Toxicity to daphnia:					n.d.a.
Toxicity to algae:					n.d.a.
Persistence and degradability:					n.d.a.
Bio-accumulative potential:					n.d.a.
Mobility in soil:					n.d.a.
Results of PBT and vPvB assessment:					n.d.a.
Other adverse effects:					n.d.a.

### SECTION 13: Disposal considerations

#### Waste treatment methods

##### For the substance / mixture / residual amounts

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

##### 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

#### Transport statements

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<b>HAZCHEM:</b>	None (ADG6)
<b>UN number</b>	
DOT, ADN, IMDG, IATA:	Non-regulated material
ADR:	Non-regulated material
<b>UN proper shipping name:</b>	
DOT, ADR, ADN, IMDG, IATA:	Non-regulated material
<b>Transport hazard class(es)</b>	
DOT, ADR, ADN, IMDG, IATA:	Non-regulated material
<b>Packaging Group</b>	
DOT, ADR, IMDG, IATA:	Non-regulated material
<b>Environmental hazards</b>	
Marine pollutant:	No
Special precautions for users:	None
Transport in bulk according to Annex II: of MARPOL 73/78 and IB Code UN "Model Regulation"	Not applicable

### SECTION 15: Regulatory information

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

Poisons Standard (SUSDP) No Poisons Schedule number allocated

**Please note that Section 3 of this document lists only the hazardous components required by the specific country or region hazard communication regulations. The chemical identifiers listed in Section 3 are used globally for hazard communication purposes and may not reflect those used for chemical inventory coverage in a particular country or region. The chemical inventory information given in Section 15 of this document applies to the product as a whole and should be used when evaluating inventory compliance.**

**The components of this product are reported in the following inventories:**

**AICIS** On the inventory, or in compliance with the inventory  
**DSL** All components of this product are on the Canadian DSL  
**NZIoC** On the inventory, or in compliance with the inventory  
**ENCS** On the inventory, or in compliance with the inventory  
**KECI** On the inventory, or in compliance with the inventory  
**PICCS** On the inventory, or in compliance with the inventory  
**IECSC** On the inventory, or in compliance with the inventory  
**TCSI** On the inventory, or in compliance with the inventory  
**US.TSCA** On TSCA Inventory

#### Labeling requirements

GHS label elements	Non-regulated material
Hazard pictograms	Non-regulated material
Signal word	Non-regulated material

#### Labeling requirements

GHS label element:	This product is classified and labeled according to the Globally Harmonized System
Hazard pictograms:	GHS08
Signal word	Danger

### SECTION 16: Other information

These details refer to the product as it is delivered.

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The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.

### 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

These statements were made by:

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