

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

EASTMAN

Therminol® VP3 Heat Transfer Fluid

PRD / SDSEU / EN / 0001

Version	Revision Date:	SDS Number:	Date of last issue: 02.01.2023
2.5	19.02.2024	150000093460	Date of first issue: 18.09.2013

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

1.1 Product identifier

Trade name : Therminol® VP3 Heat Transfer Fluid

Product code : 34153-00, P3415304, P3415303, P3415302, P3415300, E3415301

REACH Registration Number : 01-2120087198-44-0000; 01-2120087198-44-0002

EC-No. : 212-572-0

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

Use of the Sub-stance/Mixture : Heat transfer fluids

Recommended restrictions on use : None known.

1.3 Details of the supplier of the safety data sheet

Company : Eastman Chemical Company
200 South Wilcox Drive
37660-5147 Kingsport

Telephone : +14232292000

E-mail address of person responsible for the SDS : Visit our website at www.EASTMAN.com or email emnmsds@eastman.com Visit our website at www.EASTMAN.com or email emnmsds@eastman.com

1.4 Emergency telephone number

NCEC +44 (0)1235 239 670

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Aspiration hazard, Category 1	H304: May be fatal if swallowed and enters airways.
Short-term (acute) aquatic hazard, Category 1	H400: Very toxic to aquatic life.
Long-term (chronic) aquatic hazard, Category 1	H410: Very toxic to aquatic life with long lasting effects.

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2.2 Label elements

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Repeated exposure may cause skin dryness or cracking.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Cyclohexylbenzene	827-52-1 212-572-0 01-2120087198-44-0000; 01-2120087198-44-0002	Asp. Tox. 1; H304 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1	>= 90 - <= 100

For explanation of abbreviations see section 16.

Eastman is committed to the safety, health and environment of our employees, our customers, and the communities we operate within. As part of this commitment, Eastman's Safety Data Sheets (SDS) are prepared in accordance with all applicable national and local regulations. The compositions of our documents reflect these requirements which include, but are not limited to, requirements under the Globally Harmonized System of Classification and Labeling (GHS). These compositions commonly involve the use of ranges versus specific analytical values. If you require a composition that is more specific, please refer to the Certificate of Analysis, sales specification, or contact your Customer Service Representative.

SECTION 4: First aid measures

4.1 Description of first aid measures

- If inhaled : Remove person to fresh air and keep comfortable for breathing.
Get medical attention if symptoms occur.
If breathing is difficult, give oxygen.
- In case of skin contact : Wash off with soap and plenty of water.
Get medical attention if symptoms occur.
Wash contaminated clothing before reuse.

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In case of eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
Get medical attention if symptoms occur.

If swallowed : IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
Do NOT induce vomiting.
Rinse mouth with water.
Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Aspiration hazard
Causes mild skin irritation.
Prolonged skin contact may defat the skin and produce dermatitis.
The molten product can cause serious burns.

Risks : May be fatal if swallowed and enters airways.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
Do NOT induce vomiting.
Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Water spray
Carbon dioxide (CO₂)
Dry chemical
Foam

Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products : Hazardous decomposition products due to incomplete combustion
Carbon oxides

5.3 Advice for firefighters

Special protective equipment for firefighters : Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.

Further information : Use a water spray to cool fully closed containers.
Do not allow run-off from fire fighting to enter drains or water courses.

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Remove all sources of ignition.
Ventilate the area.
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
Avoid contact with skin and eyes.
Material can create slippery conditions.
Wear appropriate personal protective equipment.
Local authorities should be advised if significant spillages cannot be contained.

6.2 Environmental precautions

Environmental precautions : Clear up spills immediately and dispose of waste safely.
Avoid release to the environment.
Collect spillage.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Do not breathe vapors or spray mist.
Handle product only in closed system or provide appropriate exhaust ventilation at machinery.
In case of insufficient ventilation, wear suitable respiratory equipment.
Keep away from flames and sparks.
Wear appropriate personal protective equipment.
Avoid contact with skin, eyes and clothing.
Wash thoroughly after handling.
Wash contaminated clothing before reuse.
Drain or remove substance from equipment prior to break-in or maintenance.
Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store locked up. Keep container tightly closed in a dry and well-ventilated place. Keep in a cool place away from oxidizing agents.

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7.3 Specific end use(s)

Specific use(s) : www.therminol.com/products/

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
Cyclohexylbenzene	Workers	systemic		2,35 mg/m ³
	Workers	systemic		0,666 mg/kg bw/day
	Consumers	systemic		0,333 mg/kg bw/day
	Consumers	systemic		0,58 mg/m ³
	Consumers	systemic		0,333 mg/kg bw/day

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
Cyclohexylbenzene	Fresh water	0,37 µg/l
	Marine water	0,037 µg/l
	Intermittent	3,7 µg/l
	Fresh water sediment	0,191 mg/kg dry weight (d.w.)
	Marine sediment	0,0191 mg/kg dry weight (d.w.)
	Soil	0,038 mg/kg dry weight (d.w.)
	Sewage treatment plant	17 mg/l
	Secondary Poisoning	13,3 mg/kg food

8.2 Exposure controls

Engineering measures

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal protective equipment

Eye/face protection : Wear safety glasses with side shields (or goggles).

Hand protection

Remarks : Wear suitable gloves. When handling hot material, use heat resistant gloves.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : Use a properly fitted, particulate filter respirator complying with

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an approved standard if a risk assessment indicates this is necessary.
Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable.
If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Protective measures : Ensure that eye flushing systems and safety showers are located close to the working place.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	: liquid, oily
Colour	: colourless
Odour	: mild
Odour Threshold	: not determined
Melting point/freezing point	: 3 - 5 °C
Boiling point/boiling range	: 243 °C
Flammability	: Not applicable
Upper explosion limit / Upper flammability limit	: not determined
Lower explosion limit / Lower flammability limit	: not determined
Flash point	: 104 °C Method: Cleveland open cup
Auto-ignition temperature	: not determined
Decomposition temperature	: not determined
pH	: not determined
Viscosity	
Viscosity, dynamic	: 2,0 mPa.s (38 °C)
Viscosity, kinematic	: 2,04 mm ² /s (40 °C)
Solubility(ies)	
Water solubility	: < 0,023 g/l (20 °C)

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Partition coefficient: n-octanol/water	:	log Pow: > 4
Vapour pressure	:	0,03 hPa (20 °C) 0,16 hPa (40 °C)
Relative density	:	0,934 (25 °C)
Density	:	933 kg/m ³ (20 °C)
Relative vapour density	:	not determined

9.2 Other information

Explosives	:	Not explosive
Oxidizing properties	:	Not classified
Self-ignition	:	351 °C Method: ASTM D2155
Evaporation rate	:	not determined

SECTION 10: Stability and reactivity

10.1 Reactivity

None reasonably foreseeable.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions	:	None known.
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10.4 Conditions to avoid

Conditions to avoid	:	Heating in air. Keep away from flames and sparks.
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10.5 Incompatible materials

Materials to avoid	:	Strong oxidizing agents
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10.6 Hazardous decomposition products

Emits acrid smoke and fumes when heated to decomposition.

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SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Not classified based on available information.

Product:

- Acute oral toxicity : LD50 Oral (Rat, male and female): > 2.000 mg/kg
Method: Acute Oral Toxicity: Up-and-Down Procedure
GLP: yes
Assessment: Not classified
- Acute inhalation toxicity : Remarks: No data available
- Acute dermal toxicity : LD50 Dermal (Rabbit, male and female): > 2.000 mg/kg
Method: OECD Test Guideline 402
GLP: yes
Assessment: Not classified
- Acute toxicity (other routes of administration) : (Rat, male and female): > 3.684 mg/kg
Application Route: Intraperitoneal injection

Components:

Cyclohexylbenzene:

- Acute oral toxicity : LD50 Oral (Rat, male and female): > 2.000 mg/kg
Method: OECD Test Guideline 425
GLP: yes
Assessment: The substance or mixture has no acute oral toxicity
- Acute dermal toxicity : LD50 Dermal (Rabbit, male and female): > 2.000 mg/kg
Method: OECD Test Guideline 402
GLP: yes
Assessment: The substance or mixture has no acute dermal toxicity
- Acute toxicity (other routes of administration) : (Rat, male and female): > 3.684 mg/kg
Application Route: Intraperitoneal injection

Skin corrosion/irritation

Not classified based on available information.

Components:

Cyclohexylbenzene:

- Species : Rabbit
Exposure time : 4 h
Method : OECD Test Guideline 404
Result : Mild skin irritation
GLP : yes

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Serious eye damage/eye irritation

Not classified based on available information.

Components:

Cyclohexylbenzene:

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	No eye irritation
GLP	:	yes

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:

Cyclohexylbenzene:

Test Type	:	Maximization Test
Exposure routes	:	Skin contact
Species	:	Guinea pig
Assessment	:	Not classified
Method	:	OECD Test Guideline 406
Result	:	Did not cause sensitization on laboratory animals.

Germ cell mutagenicity

Not classified based on available information.

Components:

Cyclohexylbenzene:

Genotoxicity in vitro	:	Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative GLP: yes
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	:	Test Type: Chromosome aberration test in vitro Test system: Chinese hamster lung cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: negative
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	:	Test Type: In vitro mammalian cell gene mutation test Test system: Chinese hamster ovary cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476
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Result: negative

Carcinogenicity

Not classified based on available information.

Components:

Cyclohexylbenzene:

Remarks : This information is not available.

Reproductive toxicity

Not classified based on available information.

Components:

Cyclohexylbenzene:

Effects on fertility : Test Type: Fertility/early embryonic development
Species: Rat, male and female
Strain: wistar
Application Route: Oral
General Toxicity - Parent: NOAEL: 200 mg/kg body weight
General Toxicity F1: 200
Fertility: NOAEL Parent: 1.000
Method: OECD Test Guideline 422

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Components:

Cyclohexylbenzene:

Exposure routes : Oral
Target Organs : Kidney, Liver
Assessment : No significant health effects observed in animals at concentrations of 200 mg/kg bw or less.
Remarks : Not classified

Repeated dose toxicity

Product:

Species : Rat, male and female
NOAEL : 200 mg/kg
Application Route : Oral
Method : OECD Test No. 422: Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test
Target Organs : Kidney, Liver

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Components:

Cyclohexylbenzene:

Species	:	Rat, male and female
NOAEL	:	200 mg/kg
Application Route	:	Oral
Method	:	OECD Test No. 422: Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test
Target Organs	:	Kidney, Liver

Aspiration toxicity

May be fatal if swallowed and enters airways.

Components:

Cyclohexylbenzene:

May be fatal if swallowed and enters airways.

11.2 Information on other hazards

Experience with human exposure

Product:

Inhalation	:	Remarks: None known.
Skin contact	:	Remarks: Causes mild skin irritation.
Eye contact	:	Remarks: None known.
Ingestion	:	Remarks: May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish	:	LC50 (<i>Oryzias latipes</i> (Japanese medaka)): 1,2 mg/l Exposure time: 96 h Test Type: semi-static test Method: OECD Test Guideline 203 GLP: yes
		LC50 (<i>Pimephales promelas</i> (fathead minnow)): > 10 mg/l Exposure time: 96 h Test Type: static test Method: OPPTS 850.1075 GLP: yes
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (<i>Daphnia magna</i> (Water flea)): 0,37 mg/l Exposure time: 48 h Test Type: static test

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Method: OECD Test Guideline 202

EC50 (Daphnia magna (Water flea)): 0,703 mg/l
Exposure time: 48 h
Test Type: static test
Method: EPA-660/3-75-009

Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): 0,69 mg/l
Exposure time: 72 h
Test Type: Growth inhibition
Method: OECD Test Guideline 201
GLP: yes

NOEC (Pseudokirchneriella subcapitata (green algae)): 0,11 mg/l
Exposure time: 72 h
Test Type: Growth inhibition
Method: OECD Test Guideline 201
GLP: yes

Toxicity to fish (Chronic toxicity) : NOEC: > 5 mg/l
Exposure time: 124 h

Toxicity to microorganisms : EC50 (Bacteria): 1.000 mg/l
Exposure time: 3 h
Test Type: Respiration inhibition
Method: OECD Test Guideline 209
GLP: yes

: EC10 (Bacteria): 170 mg/l
Exposure time: 3 h
Test Type: Respiration inhibition
Method: OECD Test Guideline 209
GLP: yes

Components:

Cyclohexylbenzene:

Toxicity to fish : LC50 (Oryzias latipes (Japanese medaka)): 1,2 mg/l
Exposure time: 96 h
Test Type: semi-static test
Method: OECD Test Guideline 203
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,37 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

EC50 (Daphnia magna (Water flea)): 0,703 mg/l
Exposure time: 48 h
Test Type: static test

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Method: EPA-660/3-75-009

Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): 0,69 mg/l

Exposure time: 72 h

Test Type: Growth inhibition

Method: OECD Test Guideline 201

GLP: yes

NOEC (Pseudokirchneriella subcapitata (green algae)): 0,11 mg/l

Exposure time: 72 h

Test Type: Growth inhibition

Method: OECD Test Guideline 201

GLP: yes

M-Factor (Acute aquatic toxicity) : 1

Toxicity to microorganisms : EC50 (Bacteria): 1.000 mg/l
Exposure time: 3 h
Test Type: Respiration inhibition
Method: OECD Test Guideline 209
GLP: yes

EC10 (Bacteria): 170 mg/l

Exposure time: 3 h

Test Type: Respiration inhibition

Method: OECD Test Guideline 209

GLP: yes

Toxicity to fish (Chronic toxicity) : NOEC: > 5 mg/l
Exposure time: 124 h

M-Factor (Chronic aquatic toxicity) : 1

12.2 Persistence and degradability

Product:

Biodegradability : Result: Inherently biodegradable.
Biodegradation: 12 %
Exposure time: 55 d

Biochemical Oxygen Demand (BOD) : < 164 mg/g

Chemical Oxygen Demand (COD) : Remarks: No data available

Components:

Cyclohexylbenzene:

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Biodegradability : Result: Inherently biodegradable.
Biodegradation: 12 %
Exposure time: 55 d

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Bioconcentration factor (BCF): 2.301
Remarks: The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.

Components:

Cyclohexylbenzene:

Bioaccumulation : Bioconcentration factor (BCF): 2.301
Remarks: The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.

Partition coefficient: n-octanol/water : Pow: > 10.000

12.4 Mobility in soil

Product:

Distribution among environmental compartments : Adsorption/Soil
Koc: 5129, log Koc: 3,71
Method: QSAR model

Components:

Cyclohexylbenzene:

Distribution among environmental compartments : Adsorption/Soil
Koc: 5129, log Koc: 3,71
Method: QSAR model

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

No data available

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of in accordance with local regulations.

SECTION 14: Transport information

14.1 UN number or ID number

ADN : UN 3082
ADR : UN 3082
IMDG : UN 3082
IATA : UN 3082

14.2 UN proper shipping name

ADN : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Cyclohexylbenzene)
ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Cyclohexylbenzene)
IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Cyclohexylbenzene)
IATA : Environmentally hazardous substance, liquid, n.o.s.
(Cyclohexylbenzene)

14.3 Transport hazard class(es)

	Class	Subsidiary risks
ADN	: 9	
ADR	: 9	
IMDG	: 9	
IATA	: 9	

14.4 Packing group

ADN
Packing group : III
Classification Code : M6
Hazard Identification Number : 90
Labels : 9
ADR
Packing group : III
Classification Code : M6
Hazard Identification Number : 90
Labels : 9

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Tunnel restriction code : (-)

IMDG

Packing group : III
Labels : 9
EmS Code : F-A, S-F
Remarks : Shipping in package sizes of less than 5 L (liquids) or 5 KG (solids) may lead to a non-regulated classification.

IATA (Cargo)

Packing instruction (cargo aircraft) : 964
Packing instruction (LQ) : Y964
Packing group : III
Labels : Miscellaneous
Remarks : Shipping in package sizes of less than 5 L (liquids) or 5 KG (solids) may lead to a non-regulated classification.

IATA (Passenger)

Packing instruction (passenger aircraft) : 964
Packing instruction (LQ) : Y964
Packing group : III
Labels : Miscellaneous
Remarks : Shipping in package sizes of less than 5 L (liquids) or 5 KG (solids) may lead to a non-regulated classification.

14.5 Environmental hazards

ADN

Environmentally hazardous : yes

ADR

Environmentally hazardous : yes

IMDG

Marine pollutant : yes

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import : Not applicable

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of dangerous chemicals

REACH - Candidate List of Substances of Very High Concern for Authorization (Article 59) : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. E1 ENVIRONMENTAL HAZARDS

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)
Volatile organic compounds (VOC) content: 8 %

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

TCSI : On the inventory, or in compliance with the inventory

TSCA : All substances listed as active on the TSCA inventory

KECI : On the inventory, or in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

15.2 Chemical safety assessment

A Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information

Full text of H-Statements

H304 : May be fatal if swallowed and enters airways.

H400 : Very toxic to aquatic life.

H410 : Very toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Aquatic Acute : Short-term (acute) aquatic hazard

Aquatic Chronic : Long-term (chronic) aquatic hazard

Asp. Tox. : Aspiration hazard

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard

SAFETY DATA SHEET

EASTMAN

according to Regulation (EC) No. 1907/2006

Therminol® VP3 Heat Transfer Fluid

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of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECl - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Sources of key data used to : www.therminol.com/products/
compile the Safety Data Sheet

Classification of the mixture:

Asp. Tox. 1	H304
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

Classification procedure:

On basis of test data.
On basis of test data.
On basis of test data.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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Annex: Exposure Scenarios

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