

SAFETY DATA SHEET

according to Regulation No. 1907/2006 (REACH) and
Commission Regulation (EU) 2020/878

Version: 1.0
Issue date: 2021-09-29

DECOTHERM® FG

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

1.1 Product identifier

Chemical name/ trade name: **DECOTHERM® FG**

Producer: **OMA CZ, a.s.**
Address: **Stráž pod Ralskem, 47127, Borová 103**

Distributor: **OMA CZ Slovakia s.r.o.**
Address: **Bratislava, 81104, Boženy Nemcovej 8**

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

Intended use: Frost-resistant and heat-transfer medium for closed cooling systems in the food industry.

Uses advised against: The use should be limited to those listed above.

1.3 Details of the supplier of the safety data sheet

Supplier of SDS: OMA CZ Slovakia s.r.o.
Address: Bratislava, 81104, Boženy Nemcovej 8
Identification No.: 50299964
Tel: +421903714919
www: www.omacz.sk
Responsible person for this SDS: OMA CZ, a.s., laborator@omacz.cz

1.4 Emergency telephone number

**National Poisons Information Service (NPIS), Royal Infirmary of Edinburgh, Edinburgh
EH16 4SA, United Kingdom, Tel.: +44 121 507 4123, 844 892 0111**

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to the EC Regulation No. 1272/2008 (CLP): This product is not classified as dangerous.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]:

Hazard pictogram(s): None

Signal word(s): None

Contain: --

Hazard statement(s): None

Precautionary statement(s): None

Supplemental information:

EUH210 Safety data sheet available on request.

2.3 Other hazards

This mixture does not contain any substances which are classified as PBT or vPvB

This product does not contain SVHC.

This product does not contain endocrine disruptors in a concentration of 0.1% by weight or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

It does not contain hazardous ingredients. Contains propylene glycol, corrosion inhibitors, stabilizers and defoamers.

SAFETY DATA SHEET

according to Regulation No. 1907/2006 (REACH) and
Commission Regulation (EU) 2020/878

Version: 1.0
Issue date: 2021-09-29

DECOTHERM® FG

Name of the component	Content (weight %)	CAS EINECS Index N° Reg. Number	Classification according to Regulation (EC) No 1278/2008 (CLP)
Propane-1,2-diol	96	57-55-6 200-338-0 01-2119456809-23-0000	<i>not dangerous, but has exposure limits and eco- / toxicological values (see sections 8, 11 and 12)</i>

For full text of H-statements see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice:	In any case, avoid chaotic behavior. If you need medical treatment, always take the original package with the label or the safety data sheet.
Inhalation:	Break Exposure. Remove victim to fresh air, keep calm and warm.
Skin contact:	Remove contaminated clothing and footwear. Wash the affected skin with water and soap. If there is irritation, seek medical attention.
Eye contact:	If the contact lenses are used, carefully remove them and start rinsing with clean water, the affected eye wide open, from the inner corner to the outside and also under the lid for at least 15 minutes. If problems persist, seek medical attention.
Ingestion:	Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person or if it has cramps.
Protection of first aiders:	When providing first aid, it is essential to ensure both the rescue and the rescued safety.

4.2 Most important symptoms and effects, both acute and delayed

May irritate mucous membranes, eyes and skin.

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:	Foam, extinguishing powder, CO ₂ , water mist.
Unsuitable extinguishing media:	Direct water flow - could cause fire to spread.

5.2 Special hazards arising from the substance or mixture

Combustion products and hazardous gases: smoke, carbon monoxide, carbon dioxide. The heat from a fire can form flammable vapors, which can be heavier than air and spread over long distances on the ground. Cool closed containers exposed to fire with water spray.

5.3 Advice for firefighters

Respiratory units exposed to smoke or vapors must be equipped with respiratory and eye protection devices. When using in enclosed areas, an insulating respirator must be used. Containers exposed to fire cool with water mist. Collect extinguishing water separately, and avoid its penetration into the soil and water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear suitable protective clothing, replace contaminated clothing. Avoid contact with skin and eyes, contamination of clothes and shoes. Ensure ventilation of the affected area. All persons who do not participate in rescue operations to a safe distance.

SAFETY DATA SHEET

according to Regulation No. 1907/2006 (REACH) and
Commission Regulation (EU) 2020/878

Version: 1.0
Issue date: 2021-09-29

DECOTHERM® FG

6.2 Environmental precautions

Prevent leakage into the environment, avoid ingress into surface water and sewers, soil and land. In case of leakage into the sewage system or water course, inform immediately its administrator, the police, the fire brigade or the environmental department.

6.3 Methods and material for containment and cleaning up

In case of leakage, localize and, if possible, absorb / remove mechanically. Residues or smaller amounts sweep / get absorbed into a suitable absorbent (universal sorbent, diatomaceous earth, soil, sand) and place in suitable containers and labeled for disposal transmit in accordance with applicable regulations.

6.4 Reference to other sections

See section 7, 8 a 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Use appropriate PPE. Use only in well-ventilated areas with fresh air intake or with adequate ventilation. Do not eat, drink, smoke. After working, wash your hands. Comply with regulations on health and safety at work.

7.2 Conditions for safe storage, including any incompatibilities

Store in well sealed original containers in dry, cool and well-ventilated areas. Store in a vertical position to prevent leakage and dripping. Keep away from food, feed and medication. Do not store together with oxidizing and self-igniting products. Protect from heat and moisture.

7.3 Specific end use(s)

See section 1.2.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Exposure limits: According to national legislation of target country.

Substance	CAS	Permissible exposure limits (mg/m ³)	Maximum permissible concentration (mg/m ³)	Note
No data available.				

Substances with Community Exposure Limits: Union occupational exposure limit values in accordance with Directive 2000/39/EC (as amended).

Substance	CAS	Limit values		Note
		OEL (mg/m ³)	STEL (mg/m ³)	
No data available.				

DNEL:

Propane-1,2-diol (CAS: 57-55-6)

SAFETY DATA SHEET

according to Regulation No. 1907/2006 (REACH) and
Commission Regulation (EU) 2020/878

Version: 1.0
Issue date: 2021-09-29

DECOTHERM® FG

Exposed group and route of exposure	Duration of exposure	Type of effect	Unit	Value
Workers				
Inhalation	Long-term (chronic)	systemic	mg/m ³	168
		local	mg/m ³	10
Consumers				
Inhalation	Long-term (chronic)	systemic	mg/m ³	50
		local	mg/m ³	10

PNEC:

Propane-1,2-diol (CAS: 57-55-6)

Component of the environment	PNEC	Unit	Value	
Water environment	Freshwater	PNEC _{water, fresh.}	mg/L	260
	Freshwater, occasional leakage	PNEC _{water, fresh.}	mg/L	183
	Freshwater sediment	PNEC _{sed., fresh.}	mg/kg _{sediment dw}	572
	Seawater	PNEC _{water, mar.}	mg/L	26
	Marine sediment	PNEC _{sed., mar.}	mg/kg _{sediment dw}	57.2
Microbiological activity	Wastewater treatment plant	PNEC _{sew. treat.}	mg/L	20 000
Terrestrial environment / organisms	Soil	PNEC _{soil}	mg/kg _{soil dw}	50

DNELs and PNECs values for the other components of the mixture haven't been determined.

8.2 Exposure controls

Technical measures:

Technical measures and appropriate work procedures take precedence over personal protective equipment. Observe the usual hygiene principles. Do not eat, drink, smoke. Before breaks and after work wash your hands with warm water and soap. An eye / safety shower with running water should be in the immediate vicinity of the work area for possible eye rinsing.

Individual protection measures

Respiratory protection:

If the exposure limits are exceeded, when using dust, fog, aerosol, use a suitable filter (type ABEK -EN 14387+A1 - anti-gas and combined filter)

Hand protection:

Protective working gloves (EN 374). Observe the manufacturer's exact instructions, including the time of use. Replace damaged gloves.

Eye / face protection:

Safety glasses with side-plates or facial shields (EN 166).

Skin protection:

Working clothes (EN ISO 13688) and footwear (EN ISO 20347).

Thermal hazards:

No data available.

Environmental exposure controls:

Avoid unnecessary releases into the environment.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:

Liquid

Colour:

Colorless, clear

Odour:

No data available.

Odour threshold:

No data available.

pH :

10 - 12.5 (33% aqueous solution)

SAFETY DATA SHEET

according to Regulation No. 1907/2006 (REACH) and
Commission Regulation (EU) 2020/878

Version: 1.0
Issue date: 2021-09-29

DECOTHERM® FG

Melting point / freezing point (°C):	Dilution with demineralized water in the ratio: 1:3 (25% Decotherm FG) = -10°C 1:2 (33,3% Decotherm FG) = -15°C 2:3 (40% Decotherm FG) = -21°C 1:1 (50% Decotherm FG) = -33°C
Boiling point or initial boiling point and boiling range (°C):	No data available.
Flash point (°C):	No data available.
Evaporation rate:	No data available.
Flammability (gases, liquids and solids):	No data available.
Lower and upper explosion limit:	No data available.
Vapour pressure (20 °C):	No data available.
Vapour pressure (50 °C):	No data available.
Relative vapour density:	No data available.
Density and/or relative density (g/cm ³ , 20 °C):	1.045 - 1.07
Solubility (20 °C):	Unlimited
Partition coefficient n-octanol/water (log value):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Kinematic viscosity:	No data available.
Refractive index (20 °C):	No data available.
Oxidising properties:	No data available.
Explosive properties:	No data available.

9.2 Other information

VOC (%):	No data available.
Dry matter content:	No data available.
Reserve alkalinity (ml 0,1M HCl)	≥ 8,5

9.2.1 Information with regard to physical hazard classes

The product has no physical hazards.

9.2.2 Other safety characteristics:

mechanical sensitivity:	No data available.
self-accelerating polymerisation temperature:	No data available.
formation of explosible dust/air mixtures:	No data available.
acid/alkaline reserve:	No data available.
evaporation rate	No data available.
miscibility:	No data available.
conductivity:	No data available.
corrosiveness:	No data available.
gas group:	No data available.
redox potential:	No data available.
radical formation potential:	No data available.
photocatalytic properties:	No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity Not expected under proper conditions of use.

10.2 Chemical stability Stable under normal conditions.

SAFETY DATA SHEET

according to Regulation No. 1907/2006 (REACH) and
Commission Regulation (EU) 2020/878

Version: 1.0
Issue date: 2021-09-29

DECOTHERM® FG

- 10.3 Possibility of hazardous reactions** Thermal decomposition may produce: carbon monoxide and other toxic fumes.
- 10.4 Conditions to avoid** Comply with the handling and storage conditions set out in Section 7. Avoid high temperatures and contact with oxidizing agents.
- 10.5 Incompatible materials** Strong oxidizing agents, strong acids, zinc.
- 10.6 Hazardous decomposition products** Avoid high temperatures and contact with oxidizing agents.

SECTION 11: Toxicological information

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

Propane-1,2-diol (CAS: 57-55-6)

Acute toxicity:

Test type	Results	Exposure	Tested organisms
key study	22 000 mg/kg bw, LD50	oral: gavage	rat
key study	> 2 000 mg/kg bw, LD50	dermal	rabbit
weight of evidence	> 44.9 mg/L air (analytical)	inhalation: aerosol	rat

Serious eye damage / irritation:

Test type	Results	Exposure	Tested organisms
	No data available.		

Skin corrosion / irritation:

Test type	Results	Exposure	Tested organisms
OECD 404, key study	not irritating	Skin	rabbit

Respiratory or skin sensitisation:

Test type	Results	Exposure	Tested organisms
	No data available.		

STOT - single exposure:

Test type	Results	Exposure	Tested organisms
	No data available.		

STOT - repeated exposure:

Test type	Results	Exposure	Tested organisms
key study	1 700 mg/kg bw/day, NOAEL -male 2 100 mg/kg bw/day, NOAEL -female	oral	rat
key study	1 000 mg/m ³ air, NOAEC -female 2 200 mg/m ³ air, NOAEC -male 160 mg/m ³ air, LOEC	inhalation	rat
supporting study	0.02 ml/twice a week, NOAEL	dermal	mouse

SAFETY DATA SHEET

according to Regulation No. 1907/2006 (REACH) and
Commission Regulation (EU) 2020/878

Version: 1.0
Issue date: 2021-09-29

DECOTHERM® FG

Carcinogenicity:

Test type	Results	Exposure	Tested organisms
key study	3 040 mg/kg bw/day, NOAEL -male 2 330 mg/kg bw/day, -female	oral: drinking water	rat
supporting study	> 350 mg/m ³ air, NOAEC	inhalation: vapour	rat
supporting study	0.02 ml/twice a week, NOAEL	dermal	mouse

Germ cell mutagenicity:

Test type	Results	Exposure	Tested organisms
key study	negative	oral: gavage	rat

Reproductive toxicity:

Test type	Results	Exposure	Tested organisms
key study	10 100 mg/kg bw/day, NOAEL	oral: drinking water	mouse

Aspiration hazard:

Test type	Results	Exposure	Tested organisms
	No data available.		

Mixture:

Acute toxicity:	The product does not meet the criteria for classification.
Serious eye damage / irritation:	The product does not meet the criteria for classification.
Skin corrosion / irritation:	The product does not meet the criteria for classification.
Respiratory or skin sensitisation:	The product does not meet the criteria for classification.
STOT - single exposure:	The product does not meet the criteria for classification.
STOT - repeated exposure:	The product does not meet the criteria for classification.
Carcinogenicity:	The product does not meet the criteria for classification.
Germ cell mutagenicity:	The product does not meet the criteria for classification.
Reproductive toxicity:	The product does not meet the criteria for classification.
Aspiration hazard:	The product does not meet the criteria for classification.

11.2 Information on other hazards Endocrine disrupting properties

This product does not contain endocrine disruptors in a concentration of 0.1% by weight or higher.

Other information: No data available.

SECTION 12: Ecological information

12.1 Toxicity

The product does not meet the criteria for classification.

Propane-1,2-diol (CAS: 57-55-6)

Toxicity	Tested organisms	Results	Test type
Acute toxicity to fish	<i>Oncorhynchus mykiss</i>	40 613 mg/L, LC50 / 96 h	

SAFETY DATA SHEET

according to Regulation No. 1907/2006 (REACH) and
Commission Regulation (EU) 2020/878

Version: 1.0
Issue date: 2021-09-29

DECOTHERM® FG

Acute toxicity to invertebrates	<i>Ceriodaphnia dubia</i>	18 340 mg/L, LC50 / 48 h	
Acute toxicity to aquatic algae	<i>Pseudokirchneriella subcapitata</i>	24 200 mg/L, EC50 / 72 h	OECD 201

- 12.2 Persistence and degradability** Easily biodegradable.
- 12.3 Bioaccumulative potential** No data available.
- 12.4 Mobility in soil** The mixture is miscible with water.
- 12.5 Results of PBT and vPvB assessment** This mixture does not contain any substances which are classified as PBT or vPvB
- 12.6 Endocrine disrupting properties** This product does not contain endocrine disruptors in a concentration of 0.1% by weight or higher.
- 12.7 Other adverse effects** No data available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Catalogue No. of mixture waste: 16 01 15 Antifreeze fluids other than those mentioned in 16 01 14
Waste codes / waste designations according to LoW: 15 01 02 Plastic packaging

Recommended procedure for mixture waste disposal: Collect the remaining mixture in the marked containers and hand it over for disposal to a person authorized for waste management. If possible, regenerate the product. Recommended method of disposal in an incinerator or landfill.

Recommended procedure for packaging disposal: Empty containers must be disposed of in accordance with the applicable waste legislation. After perfect cleaning, the packaging can be used as a secondary raw material for the same purpose. Recommended way of disposing of recycling, burning in a hazardous waste incinerator or storing hazardous waste.

Physical / chemical properties that may affect waste treatment method: No data available.

Sewage disposal-relevant information: Protect against weathering. Prevent leakage of waste into the water / soil / sewage system. In case of leakage, inform the competent authorities.

Other disposal recommendations: Dispose of in accordance with applicable legislation.

SECTION 14: Transport information

	Type of transport	Land transport ADR / RID	Sea transport IMDG	Air Transport ICAO / IATA
14.1	UN number or ID number	There is no dangerous good in terms of transport.	There is no dangerous good in terms of transport.	There is no dangerous good in terms of transport.
14.2	UN proper shipping name	-	-	-
	Transport hazard class(es)	-	-	-

SAFETY DATA SHEET

according to Regulation No. 1907/2006 (REACH) and
Commission Regulation (EU) 2020/878

Version: 1.0
Issue date: 2021-09-29

DECOTHERM® FG

14.3	Classification code	-	-	-
	EmS	-	-	-
	Packaging instructions	-	-	-
	Labels	-	-	-
14.4	Packing group	-	-	-

14.5 Environmental hazards No data available.

14.6 Special precautions for user No data available.

14.7 Maritime transport in bulk according to IMO instruments Not specified.

SECTION 15: Regulatory information

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

Regulation (EC) No. 1272/2008 (CLP) on classification, labelling and packaging of substances and mixtures, ...
Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), ...
Applicable national regulations.

15.2 Chemical safety assessment It was not performed for the mixture.

SECTION 16: Other information

Complete text of all classifications and hazard classes referred to in SECTION 3

None.

Abbreviations:

ADN	Inland waterways
ADR	Accord Dangereuses Route
CAS	Chemical Abstracts Service
DNEL	Derived no-effect level
EC50	Effect concentration for 50%
EINECS	European Inventory of Existing Commercial Chemical Substances
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
LC50	Lethal concentration for 50%
LD50	Lethal dose for 50%
LOEC	Lowest observable effect concentration
NEL	No effect level
NOAEC	No observable adverse effect concentration
NOAEL	No observable adverse effect level
NPK-P	Maximum permissible concentration
OEL	Occupational Exposure Limit (workplace exposure limit - 8 hours / shift)
PBT	Persistent, bioaccumulative and toxic
PEL	Permissible exposure limits
PNEC	Predicted no-effect concentration
RID	Regulations for the International Carriage of Dangerous Goods by Rail
STEL	Short Term Exposure Limit (short exposure - corresponds to approx. 15 min.)
VOC	Volatile organic substances

SAFETY DATA SHEET

according to Regulation No. 1907/2006 (REACH) and
Commission Regulation (EU) 2020/878

Version: 1.0
Issue date: 2021-09-29

DECOTHERM® FG

vPvB Very persistent and very bioaccumulative

Changes to previous version SDS: first edition of the SDS, is in accordance with Regulation (EC) No 1907/2006 (REACH) and no. 1272/2008 (CLP).

Key literature references and sources for data: manufacturer information, CASEC database, European Chemicals Agency (ECHA) website.

Classification was performed by calculation method.

Instructions for training:

Workers who come into contact with dangerous substances must be aware of the effects of these substances, how they are treated, and protective measures to the extent necessary.

Furthermore, they must be familiar with the first aid principles, with the necessary sanitation procedures and with the procedures for disaster and accident elimination.

The person handling this chemical product must be familiar with the safety rules and the data given in the safety data sheet.

If a hazardous chemical / mixture is classified as corrosive or toxic, workers should be made aware of the Corrosive / Toxic Chemicals / Mixing Rules.

Persons carrying dangerous substances must be familiar with the ADR / RID accident instructions.

Other information:

The above information describes the conditions for safe handling of the product and corresponds to the current knowledge of the manufacturer and serves as instruction for the training of the persons handling the product.

The manufacturer carries guarantee the above-described properties of the product at the recommended use.

The user is responsible for determining the suitability of the product for specific purposes and adapting security measures if such application is contrary to the manufacturer's recommendations.