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

1.1 Product identifier

Chemical name/ trade name: **ANTIFREEZE HD -35°C**

UFI: SCA4-4EH6-270Q-RY7J

Producer: **OMA CZ, a.s.**

Address: **Borová 103, 47127, Stráž pod Ralskem,**

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

Intended use: Coolant, intended for cooling systems of internal combustion engines, especially highly stressed engines of buses and trucks.

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, a.s.

Address: Stráž pod Ralskem, 47127, Borová 103

Identification No.: 25406761

Tel: +420 487 851 016

www: www.omacz.cz

Responsible person for this SDS: OMA CZ, a.s., laborator@omacz.cz

1.4 Emergency telephone number

Toxicological Information Center, Na Bojišti 1, 120 00 Prague 2. Emergency phone: +420 224 91 92 93 or +420 224 91 54 02, www.tis-cz.cz

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to the EC Regulation No. 1272/2008 (CLP):

STOT RE 2; Specific target organ toxicity (repeated exposure), category 2, H373 May cause damage to organs through prolonged or repeated exposure

Acute Tox. 4; Acute Toxicity, category 4, H302 Harmful if swallowed.

2.2 Label elements

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

Hazard pictogram(s):

Signal word(s): WARNING

UFI: SCA4-4EH6-270Q-RY7J

Contain: Ethane-1,2-diol (CAS 107-21-1), Methyl-1H-benzotriazole (CAS 29385-43-1)

Hazard statement(s):
H302 Harmful if swallowed.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statement(s):
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P301/312 IF SWALLOWED: Call a POISON CENTER/doctor/... if you feel unwell.
P330 Rinse mouth.

P501 Dispose of contents / container as hazardous waste.

Supplemental information: None.

2.3 Other hazards

This product does not contain any substances which are classified as PBT or vPvB in a concentration of 0.1% by weight or higher.
This product does not contain SVHC in a concentration of 0.1% by weight or higher.
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

Name of the component	Content (weight %)	CAS EINECS Index N° Reg. Number	Classification according to Regulation (EC) No. 1272/2008 (CLP)	
Ethane-1,2-diol *	< 46	107-21-1 203-473-3 603-027-00-1 01-2119456816-28-XXXX	Acute Tox. 4 STOT RE 2	H302 H373
Methyl-1H-benzotriazole	< 0,25	29385-43-1 249-596-6 613-351-00-5 01-2119979081-35-0000	Acute Tox. 4 Aquatic Chronic 2 Repr. 2	H302 H411 H361d
** Substance with a Community workplace exposure limit.*				

For full text of H-statements see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

4.1.1 General advice:

In any case, avoid chaotic behavior. Depending on the situation, call the emergency services or arrange for medical treatment. For medical treatment, always take the original packaging with the label, or the safety data sheet, with you.

4.1.2 Inhalation:

Break Exposure. Remove victim to fresh air, keep calm and warm.

4.1.3 Skin contact:

Remove contaminated clothing and footwear. Wash the affected skin with water and soap. If there is irritation, seek medical attention.

4.1.4 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.

4.1.5 Ingestion:

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person or if it has cramps.

4.1.6 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

Harmful if swallowed.
May cause damage to organs through prolonged or repeated exposure.

4.3 Indication of any immediate medical attention and special treatment needed

Decontamination. Symptomatic treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Foam, extinguishing powder, CO2, 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.

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. Chemical protective clothing (EN 469).

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.

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

Soak up with inert material. If a large spill occurs, contain it appropriately to prevent further spread. If the material can be pumped away, place it in a suitable container. Contain the spillage with a suitable absorbent. Local or national regulations may apply to the release and disposal of this material, and any materials and items used in the clean-up of the spill. It is your responsibility to determine which regulations apply to your situation. For information on some local or national regulations, see sections 13 and 15 of this safety data sheet.

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.

7.3 Specific end use(s)

See section 1.2.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.1.1 Exposure limits: According to national legislation of target country.

Substance	CAS	Permissible exposure limits (mg/m³)	Maximum permissible concentration (mg/m³)	Note
Ethane-1,2-diol	107-21-1	particulate: 10; vapour: 52	particulate: - ; vapour: 104	*Sk - during exposure significantly substances penetrates to the skin*
Sodium-hydroxide	1310-73-2	-	2	

Substances with Community Exposure Limits:

Substance	CAS	Limit values (mg/m³)		Note
		OEL	STEL	
Ethylene glycol	107-21-1	52	104	*Dermal*

8.1.2 DNEL

Ethane-1,2-diol (CAS: 107-21-1)

Exposed group and route of exposure	Duration of exposure	Type of effect	Unit	Value
Workers				
Inhalation	Long-term (chronic)	systemic	mg/m³	-
		local	mg/m³	35
Dermal	Long-term (chronic)	systemic	mg/kg bw/d	106
Consumers				
Inhalation	Long-term (chronic)	systemic	mg/m³	-
		local	mg/m³	7
Dermal	Long-term (chronic)	systemic	mg/kg bw/d	53

Methyl-1H-benzotriazole (CAS: 29385-43-1)

Exposed group and route of exposure	Duration of exposure	Type of effect	Unit	Value
Workers				
Inhalation	Long-term (chronic)	systemic	mg/m³	8.8
Dermal	Long-term (chronic)	systemic	mg/kg bw/d	0.5
Consumers				
Inhalation	Long-term (chronic)	systemic	mg/m³	4.4
Dermal	Long-term (chronic)	systemic	mg/kg bw/d	0.25
Oral	Long-term (chronic)	systemic	mg/kg bw/d	0.25

PNEC

Methyl-1H-benzotriazole (CAS: 29385-43-1)

Component of the environment		PNEC	Unit	Value
Water environment	Freshwater	$PNEC_{water, fresh.}$	mg/L	0.008
	Freshwater, occasional leakage	$PNEC_{water, fresh.}$	mg/L	0.086
	Freshwater sediment	$PNEC_{sed., fresh.}$	mg/kg sediment dw	0.003
	Seawater	$PNEC_{water, mar.}$	mg/L	0.008
	Marine sediment	$PNEC_{sed., mar.}$	mg/kg sediment dw	0.003
Microbiological activity	Wastewater treatment plant	$PNEC_{sew. treat.}$	mg/L	39.4
Terrestrial environment / organisms	Soil	$PNEC_{soil}$	mg/kg soil dw	0.002

DNEL and PNEC values for the other components of the mixture haven´t been determined.

8.1.3 Biological limit values

Substance	CAS No:	Indicator	Limit Value
No data available.			

8.2 Exposure controls

8.2.1 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.

8.2.2 Individual protection measures

Respiratory protection:

If the exposure limits are exceeded, when using dust, fog, aerosol, use a suitable filter (type ABEK -EN 14387 - anti-gas and combined filters, type P -EN 143 - particle filters, type FFP3 / FFP2 - EN 149+A1 - Particle-based half masks; EN 142 - mouth masks).

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); eye and face protection for work use (EN ISO 16321).

Skin protection:

Working clothes (EN ISO 13688) and footwear (EN ISO 20347 and ISO 20345). Protective clothing against liquid chemicals (EN 14605+A1). Protective clothing against chemicals (EN ISO 13034+A1; 13982-1;943-1+A1).

8.2.3 Thermal hazards:

No data available.

8.2.4 Environmental exposure controls:

Avoid unnecessary releases into the environment.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Property	Value	Method	Note
Physical state:	Liquid		
Colour:	Blue-green		
Odour:	No data available.		
Odour threshold:	No data available.		
pH :	7.5 - 9		
Freezing point (°C):	-35		
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/cm³, 20 °C):	1.06 - 1.09		
Solubility (20 °C):	No data available.		
Partition coefficient n-octanol/water (log value):	No data available.		
Auto-ignition temperature (°C):	No data available.		
Decomposition temperature (°C):	No data available.		
Kinematic viscosity (40°C):	No data available.		
Refractive index (20 °C):	No data available.		
Oxidising properties:	No data available.		
Explosive properties:	No data available.		
Particle characteristics:	No data available.		

9.2 Other information

VOC (%): 45.5

Dry matter content: No data available.

Additional information: No data available.

9.2.1 Information with regard to physical hazard classes

The product has no physical hazards.

9.2.2 Other safety characteristics

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.

10.3 Possibility of hazardous reactions

May react with strong oxidizing agents.

10.4 Conditions to avoid

Not known.

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

Hazardous decomposition products are not known.

SECTION 11: Toxicological information

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

Individual components:

Ethane-1,2-diol (CAS: 107-21-1)

Acute toxicity

Test type	Results	Exposure	Tested organisms
key study	7 712 mg/kg bw LD50	oral: gavage	rat
key study	> 3 500 mg/kg bw LD50	dermal	mouse
key study	> 2.5 mg/L air	inhalation: aerosol	rat

Serious eye damage / irritation

Test type	Results	Exposure	Tested organisms
key study	not irritating	Eye	rabbit

Skin corrosion / irritation

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

Respiratory or skin sensitisation

Test type	Results	Exposure	Tested organisms
weight of evidence	GHS criteria not met	Skin	human

STOT - repeated exposure

Test type	Results	Exposure	Tested organisms
408, weight of evidence	150 mg/kg bw/day (nominal) NOEL	oral	rat

Carcinogenicity

Test type	Results	Exposure	Tested organisms
weight of evidence	1 500 mg/kg bw/day NOAEL	oral: feed	mouse

Germ cell mutagenicity

Test type	Results	Exposure	Tested organisms
key study	ambiguous	In vitro	Chinese hamster Ovary (CHO)

Reproductive toxicity

Test type	Results	Exposure	Tested organisms
weight of evidence	> 1 000 mg/kg bw/day NOAEL	oral: feed	rat

Methyl-1H-benzotriazole (CAS: 29385-43-1)

Acute toxicity

Test type	Results	Exposure	Tested organisms
OECD 401, key study	ca. 720 mg/kg bw, LD50	oral: gavage	rat
OECD 402, key study	> 2 000 mg/kg bw, LD50	dermal	rabbit

Serious eye damage / irritation

Test type	Results	Exposure	Tested organisms
OECD 405, key study	slightly irritating	Eye	rabbit

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
OECD 406, key study	not sensitising	Skin	guinea pig

STOT - repeated exposure

Test type	Results	Exposure	Tested organisms
OECD 407, key study	ca. 150 mg/kg bw/day (nominal), NOAEL	oral	rat

Germ cell mutagenicity

Test type	Results	Exposure	Tested organisms
OECD 474, key study	negative	oral: gavage	mouse

Reproductive toxicity

Test type	Results	Exposure	Tested organisms
OECD 421, key study	> 200 mg/kg bw/day, NOAEL > 200 mg/kg bw/day (nominal), NOAEL	oral: gavage	rat

Mixture:

Acute toxicity:	Harmful if swallowed.
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:	May cause damage to organs through prolonged or repeated exposure .
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.

Ethane-1,2-diol (CAS: 107-21-1)

Toxicity	Tested organisms	Results	Test type
Acute toxicity to fish	*Pimephales promelas*	> 72 860 mg/L LC50 / 96 h	
Acute toxicity to invertebrates	*Daphnia magna*	> 100 mg/L EC50 / 48 h	202
Acute toxicity to aquatic algae	*Pseudokirchneriella subcapitata*	> 100 mg/L NOEC / 72 h	201

Methyl-1H-benzotriazole (CAS: 29385-43-1)

Toxicity	Tested organisms	Results	Test type
Acute toxicity to fish	*Cyprinodon variegatus*	55 mg/L, LC50 / 96 h 30 mg/L, NOEC / 96 h	
Acute toxicity to invertebrates	*other aquatic crustacea: Daphnia galeata*	15.8 mg/L, EC50 / 48 h 8.56 mg/L, EC10 / 48 h 8.58 mg/L, EC50 / 48 h 4.17 mg/L, EC10 / 48 h	OECD 202
Acute toxicity to aquatic algae	*Skeletonema costatum*	53 mg/L, EC50 / 72 h 30 mg/L, NOEC / 72 h	
Biotic degradation		Under test conditions no biodegradation observed (100%)	
Bioaccumulation		2.4 L/kg ww	
log Kow / log Pow		1.081 @ 25 °C, log Kow	

12.2 Persistence and degradability

There is no data available for the product.

Biotic degradation: The biodegradability of the component is given in sec. 12.1

12.3 Bioaccumulative potential

There is no data available for the product.

log Kow / log Pow: The value of the partition coefficient of the component is given in sec. 12.1

Bioaccumulation: The value of the bioaccumulation factor of the component is given in sec. 12.1

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

This product does not contain any substances which are classified as PBT or vPvB in a concentration of 0.1% by weight or higher.

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

13.1.1 Catalogue No. of substance/mixture waste:

16 01 14 Antifreeze fluids containing dangerous substances

13.1.2 Catalog No. of packaging waste:

15 01 10 Packaging containing residues of or contaminated by dangerous substances
15 01 02 Plastic packaging

13.1.3 Recommended procedure for substance/mixture waste disposal:

No data available.

13.1.4 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.

13.1.5 Physical / chemical properties that may affect waste treatment method:

No data available.

13.1.6 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.

13.1.7 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**			
14.3	**Transport hazard class(es)**			
	Hazard identification number	-	-	-
	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

all as amended and including implementing regulations

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.

The product contains substance Disodium tetraborate, decahydrate, that is included in Annex XVII. of REACH Regulation.

15.2 Chemical safety assessment

Chemical safety assessment hasn't been made.

SECTION 16: Other information

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

Hazard class:	Acute Tox. 4 - Acute Toxicity, category 4
	Aquatic Chronic 2 - Chronic (long term) aquatic hazard, category 2
	Repr. 2 - Reproductive toxicity, category 2
	STOT RE 2 - Specific target organ toxicity (repeated exposure), category 2
H-statements:	H302 Harmful if swallowed.
	H361d Suspected of damaging the unborn child.
	H373 May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.
	H411 Toxic to aquatic life with long lasting effects.

Abbreviations

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%
NOAEL	No observable adverse effect level
NOEC	No observable effect concentration
NOEL	No observable effect level
MPC	Maximum permissible concentration
OEL	Occupational Exposure Limit (workplace exposure limit - 8 hours / shift)
PBT	Persistent, bioacumulative 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 Compounds
vPvB	Very persistent and very bioacumulative
WGK	Hazard classes for water (Wassergefährdungsklassen)
TRGS	German standard for the storage of hazardous substances (Technische Regeln für Gefahrstoffe)

Changes to previous version SDS:

New SDS prepared on the basis of Commission Regulation (EU) 2020/878. Classification was carried out using a 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.

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.