

HD Premium 50 % Prediluted

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Issue date: 1/29/2024 Revision date: 1/29/2027

Version: 1.4

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

1.1. Product identifier

Product form	: Mixture
Trade name	: HD Premium 50 % Prediluted
Product code	: HD Premium 50 % Prediluted
Product group	: Trade product

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Anti-freezing agent

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Improchem (Pty) Ltd T/A AECI Water
1 Wharhirst Road
Umbogintwini - South Africa
T +27 (031) 949 8200

1.4. Emergency telephone number

Emergency number : 0800 SPILLS OR 0800 774557

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute toxicity (oral), Category 4 H302

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice. Harmful if swallowed.

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS07

Signal word (CLP)	: Warning
Hazard statements (CLP)	: H302 - Harmful if swallowed.
Precautionary statements (CLP)	: P260 - Do not breathe dusts or mists. P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

2.3. Other hazards

PBT: not relevant – no registration required

vPvB: not relevant – no registration required

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ETHYLENE GLYCOL substance with a Community workplace exposure limit	(CAS-No.) 107-21-1 (EC-No.) 203-473-3 (EC Index-No.) 603-027-00-1 (REACH-no) 01-2119456816-28	45 – 55	Acute Tox. 4 (Oral), H302

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Treat symptomatically. Obtain medical attention. Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash with plenty of water/.... Take off contaminated clothing and wash it before reuse. Get medical advice/attention. Wash skin with plenty of water.
First-aid measures after eye contact	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention. Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell. Rinse mouth.

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

Symptoms/effects after inhalation	: EXPOSURE TO HIGH CONCENTRATIONS: Irritation of the respiratory tract. Dry/sore throat. Irritation of the nasal mucous membranes.
Symptoms/effects after skin contact	: Causes skin irritation.
Symptoms/effects after eye contact	: ON CONTINUOUS EXPOSURE/CONTACT: Irritation of the eye tissue. Redness of the eye tissue. Lacrimation.
Symptoms/effects after ingestion	: AFTER ABSORPTION OF HIGH QUANTITIES: Feeling of weakness. Central nervous system depression. Nausea. Vomiting. Gastrointestinal complaints. Difficulty in swallowing. Headache. Dizziness. Narcosis. Drunkenness. Disturbed tactile sensibility. Disturbed motor response. Visual disturbances. Disturbances of consciousness. Brain affection. Accelerated heart action. Low arterial pressure. Change in the haemogramme/blood composition. Rapid respiration. Cramps/uncontrolled muscular contractions. FOLLOWING SYMPTOMS MAY APPEAR LATER: Blue/grey discolouration of the skin. Decreased renal function. Change in urine composition. Change in urine output.

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 spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: DIRECT FIRE HAZARD. Combustible. INDIRECT FIRE HAZARD. Temperature above flashpoint: higher fire/explosion hazard. Reactions involving a fire hazard: see "Reactivity Hazard".
Explosion hazard	: No direct explosion hazard.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Advice for firefighters

Precautionary measures fire	: Exposure to fire/heat: keep upwind. Exposure to fire/heat: seal off low-lying areas. Exposure to fire/heat: have neighbourhood close doors and windows.
Firefighting instructions	: Cool tanks/drums with water spray/remove them into safety.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Evacuate area. Ventilate area. REQUIRED PERSONAL PROTECTIVE EQUIPMENT WHEN PROCESSING PRODUCT.
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6.1.1. For non-emergency personnel

Protective equipment	: Gloves. Protective clothing. Large spills/in enclosed spaces: compressed air apparatus. See "Material-Handling" to select protective clothing.
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Emergency procedures : Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Evacuate unnecessary personnel. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Prevent soil and water pollution. Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Stop leak without risks if possible. Cover spill with non combustible material, e.g.: sand, earth, vermiculite.

Methods for cleaning up : Take up liquid spill into absorbent material. Contain and/or absorb spill with inert material (sand), then place in suitable container. Do not discharge into drains or the environment.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Do not handle until all safety precautions have been read and understood. Protect from freezing. Use personal protective equipment as required.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ensure adequate ventilation, especially in confined areas. Facilities: shower, eye shower. Protect from freezing. Store in a well-ventilated place. Keep container tightly closed.

Storage conditions : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed and dry. Keep in a cool, well-ventilated place away from acids. Protect from freezing. Store in a well-ventilated place. Keep cool.

Incompatible products : Strong acids. Oxidizing agent. Strong bases.

Heat and ignition sources : KEEP SUBSTANCE AWAY FROM: heat sources.

Information on mixed storage : KEEP SUBSTANCE AWAY FROM: combustible materials. oxidizing agents. (strong) acids. (strong) bases. water/moisture.

Storage area : Store in a dry area. Ventilation at floor level. Fireproof storeroom. Keep locked up. Under a shelter/in the open. Underground. May be stored under nitrogen. Meet the legal requirements.

Special rules on packaging : SPECIAL REQUIREMENTS: closing. dry. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.

Packaging materials : SUITABLE MATERIAL: stainless steel. carbon steel. steel with plastic inner lining. glass.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

HD Premium 50 % Prediluted	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Ethylene glycol
IOEL TWA	52 mg/m ³ (Ethylene glycol; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
IOEL TWA [ppm]	20 ppm (Ethylene glycol; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
IOEL STEL	104 mg/m ³ (Ethylene glycol; EU; Short time value; Indicative occupational exposure limit value)
IOEL STEL [ppm]	40 ppm (Ethylene glycol; EU; Short time value; Indicative occupational exposure limit value)
Remark	Skin

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Austria - Occupational Exposure Limits	
Local name	Ethylenglykol
MAK (OEL TWA)	26 mg/m ³
MAK (OEL TWA) [ppm]	10 ppm
MAK (OEL STEL)	52 mg/m ³
MAK (OEL STEL) [ppm]	20 ppm
Remark	H
United Kingdom - Occupational Exposure Limits	
Local name	Ethane-1,2-diol
WEL TWA (OEL TWA) [1]	10 mg/m ³ Ethane-1,2-diol particulate; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005); Ethane-1,2-diol vapour; 52 mg/m ³ ; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
WEL TWA (OEL TWA) [2]	20 ppm Ethane-1,2-diol vapour; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
WEL STEL (OEL STEL)	104 mg/m ³ Ethane-1,2-diol vapour; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
WEL STEL (OEL STEL) [ppm]	40 ppm Ethane-1,2-diol vapour; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
USA - ACGIH - Occupational Exposure Limits	
Local name	Ethylene glycol
ACGIH OEL TWA	10 mg/m ³
ACGIH OEL C	100 mg/m ³ (Ethylene glycol; USA; Momentary value; TLV - Adopted Value)
Remark (ACGIH)	URT & eye irr
ETHYLENE GLYCOL (107-21-1)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Ethylene glycol
IOEL TWA	52 mg/m ³ (Ethylene glycol; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
IOEL TWA [ppm]	20 ppm (Ethylene glycol; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
IOEL STEL	104 mg/m ³ (Ethylene glycol; EU; Short time value; Indicative occupational exposure limit value)
IOEL STEL [ppm]	40 ppm (Ethylene glycol; EU; Short time value; Indicative occupational exposure limit value)
Remark	Skin
United Kingdom - Occupational Exposure Limits	
Local name	Ethane-1,2-diol
WEL TWA (OEL TWA) [1]	10 mg/m ³ Ethane-1,2-diol particulate; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005); Ethane-1,2-diol vapour; 52 mg/m ³ ; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)

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ETHYLENE GLYCOL (107-21-1)	
WEL TWA (OEL TWA) [2]	20 ppm Ethane-1,2-diol vapour; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
WEL STEL (OEL STEL)	104 mg/m ³ Ethane-1,2-diol vapour; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
WEL STEL (OEL STEL) [ppm]	40 ppm Ethane-1,2-diol vapour; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
USA - ACGIH - Occupational Exposure Limits	
Local name	Ethylene glycol
ACGIH OEL TWA	10 mg/m ³
ACGIH OEL C	100 mg/m ³ (Ethylene glycol; USA; Momentary value; TLV - Adopted Value)
Remark (ACGIH)	URT & eye irr

DNEL : 35 mg/m³

HD Premium 50 % Prediluted		
EU	Local name	Ethylene glycol
EU	IOEL TWA	52 mg/m ³ (Ethylene glycol; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
EU	IOEL TWA [ppm]	20 ppm (Ethylene glycol; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
EU	IOEL STEL	104 mg/m ³ (Ethylene glycol; EU; Short time value; Indicative occupational exposure limit value)
EU	IOEL STEL [ppm]	40 ppm (Ethylene glycol; EU; Short time value; Indicative occupational exposure limit value)
EU	Remark	Skin
United Kingdom	Local name	Ethane-1,2-diol
United Kingdom	WEL TWA (OEL TWA) [1]	10 mg/m ³ Ethane-1,2-diol particulate; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005); Ethane-1,2-diol vapour; 52 mg/m ³ ; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL TWA (OEL TWA) [2]	20 ppm Ethane-1,2-diol vapour; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (OEL STEL)	104 mg/m ³ Ethane-1,2-diol vapour; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (OEL STEL) [ppm]	40 ppm Ethane-1,2-diol vapour; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
United Kingdom	Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
USA - ACGIH	Local name	Ethylene glycol
USA - ACGIH	ACGIH OEL TWA	10 mg/m ³
USA - ACGIH	ACGIH OEL C	100 mg/m ³ (Ethylene glycol; USA; Momentary value; TLV - Adopted Value)
USA - ACGIH	Remark (ACGIH)	URT & eye irr
ETHYLENE GLYCOL (107-21-1)		
EU	Local name	Ethylene glycol
EU	IOEL TWA	52 mg/m ³ (Ethylene glycol; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)

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ETHYLENE GLYCOL (107-21-1)		
EU	IOEL TWA [ppm]	20 ppm (Ethylene glycol; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
EU	IOEL STEL	104 mg/m ³ (Ethylene glycol; EU; Short time value; Indicative occupational exposure limit value)
EU	IOEL STEL [ppm]	40 ppm (Ethylene glycol; EU; Short time value; Indicative occupational exposure limit value)
EU	Remark	Skin
United Kingdom	Local name	Ethane-1,2-diol
United Kingdom	WEL TWA (OEL TWA) [1]	10 mg/m ³ Ethane-1,2-diol particulate; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005); Ethane-1,2-diol vapour; 52 mg/m ³ ; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL TWA (OEL TWA) [2]	20 ppm Ethane-1,2-diol vapour; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (OEL STEL)	104 mg/m ³ Ethane-1,2-diol vapour; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (OEL STEL) [ppm]	40 ppm Ethane-1,2-diol vapour; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
United Kingdom	Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
USA - ACGIH	Local name	Ethylene glycol
USA - ACGIH	ACGIH OEL TWA	10 mg/m ³
USA - ACGIH	ACGIH OEL C	100 mg/m ³ (Ethylene glycol; USA; Momentary value; TLV - Adopted Value)
USA - ACGIH	Remark (ACGIH)	URT & eye irr

DNEL : 35 mg/m³

8.2. Exposure controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Personal protective equipment	: Gloves, shoulder length. Insufficient ventilation: wear respiratory protection. Protective clothing. Protective goggles. Safety Boots.
Materials for protective clothing	: Excellent resistance: Butyl rubber. Natural rubber. Neoprene. Nitrile rubber. Polyethylene. Polyvinylchloride (PVC). Tetrafluoroethylene. Viton. Polyethylene/ethylenevinylalcohol. Good resistance: Chlorinated polyethylene. Polyurethane. Polyvinylalcohol (PVA)
Hand protection	: Gloves, shoulder length
Eye protection	: Protective goggles. Safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment



Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Viscous.
Colour	: Yellow.
Odour	: Odourless.
Odour threshold	: No data available

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pH	: No data available
pH solution	: 1 (7.5 – 8.5) %
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: -37 °C
Boiling point	: 107 – 108 °C
Flash point	: > 100 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability	: Non flammable.
Vapour pressure	: 0.06 mm Hg (@20 C)
Relative vapour density at 20°C	: 2.1
Relative density	: No data available
Density	: 1.07 – 1.08 g/l (@ 15 C)
Solubility	: Soluble in water. Soluble in methanol. Soluble in Diethyl ether. Water: Complete Ethanol: Complete Acetone: Complete
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

Specific conductivity	: 116 µS/m
Saturation concentration	: 0.31 g/m ³
VOC content	: 0 %
Other properties	: Gas/vapour heavier than air at 20°C. Clear. Hygroscopic. Slightly volatile. Substance has neutral reaction.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts on exposure to water and heat with (some) metals. Reacts on exposure to temperature rise with (some) bases. Upon combustion: CO and CO₂ are formed.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Strong acids. Strong bases. Oxidizing agent.

10.6. Hazardous decomposition products

carbon oxides (CO and CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Harmful if swallowed.
Additional information	: Approximately 100 ml ingested can be fatal.

HD Premium 50 % Prediluted	
LD50 oral rat	> 4700 mg/kg <Missing Translation : />
LD50 dermal rabbit	9530 mg/kg
ATE CLP (dust,mist)	5000 mg/m ³
ETHYLENE GLYCOL (107-21-1)	
LD50 oral rat	> 5000 mg/kg (Rat; Literature study)

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ETHYLENE GLYCOL (107-21-1)	
LD50 oral	7712 mg/kg bodyweight
LD50 dermal	10600 mg/kg bodyweight
LC50 Inhalation - Rat (Dust/Mist)	> 2500 mg/m ³

Skin corrosion/irritation	: Not classified
Additional information	: Prolonged or repeated contact with the skin may cause dermatitis
Serious eye damage/irritation	: Irritating to eyes
Respiratory or skin sensitisation	: Not classified
Additional information	: Prolonged or repeated contact with the skin may cause dermatitis
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Laboratory experiments have shown teratogenic effects . Overexposure mayu cause reproductive disorders based on tests with laboratory animals
STOT-single exposure	: Not classified
STOT-repeated exposure	: Damage of the kidneys can occur
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Ecology - air	: Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009). TA-Luft Klasse 5.2.5/l.

HD Premium 50 % Prediluted	
LC50 - Fish [1]	> 100 mg/l
LC50 - Other aquatic organisms [1]	> 100 mg/l
EC50 - Other aquatic organisms [2]	<Missing Translation : />
EC50 72h - Algae [1]	> 100 mg/l

ETHYLENE GLYCOL (107-21-1)	
LC50 - Fish [1]	18500 mg/l (Oncorhynchus mykiss)
LC50 - Fish [2]	40761 mg/l (LC50; 96 h; Salmo gairdneri)
EC50 - Crustacea [1]	> 74000 mg/l (EC50; 24 h)
EC50 - Other aquatic organisms [1]	> 100 mg/l EC50 waterflea (48 h)
EC50 - Other aquatic organisms [2]	6500 mg/l IC50 algea (72 h) mg/l

12.2. Persistence and degradability

HD Premium 50 % Prediluted	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil.
Biochemical oxygen demand (BOD)	0.47 g O ₂ /g substance
Chemical oxygen demand (COD)	1.24 g O ₂ /g substance
ThOD	1.29 g O ₂ /g substance
BOD (% of ThOD)	0.36

ETHYLENE GLYCOL (107-21-1)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil.
Biochemical oxygen demand (BOD)	0.47 g O ₂ /g substance
Chemical oxygen demand (COD)	1.24 g O ₂ /g substance
ThOD	1.29 g O ₂ /g substance
BOD (% of ThOD)	0.36

12.3. Bioaccumulative potential

HD Premium 50 % Prediluted	
BCF - Fish [1]	10 (BCF; 72 h)
BCF - Other aquatic organisms [1]	0.21 – 0.6 (BCF)
BCF - Other aquatic organisms [2]	190 (BCF; 24 h)
Bioconcentration factor (BCF REACH)	0.6
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

ETHYLENE GLYCOL (107-21-1)	
BCF - Fish [1]	10 (BCF; 72 h)

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ETHYLENE GLYCOL (107-21-1)	
BCF - Other aquatic organisms [1]	0.21 – 0.6 (BCF)
BCF - Other aquatic organisms [2]	190 (BCF; 24 h)
Bioconcentration factor (BCF REACH)	0.6
Partition coefficient n-octanol/water (Log Pow)	-1.34 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

HD Premium 50 % Prediluted	
Surface tension	0.048 N/m (20 °C)

ETHYLENE GLYCOL (107-21-1)	
Surface tension	0.048 N/m (20 °C)

12.5. Results of PBT and vPvB assessment

HD Premium 50 % Prediluted	
PBT: not relevant – no registration required	
vPvB: not relevant – no registration required	

Component	
ETHYLENE GLYCOL (107-21-1)	PBT: not relevant – no registration required vPvB: not relevant – no registration required

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of in accordance with relevant local regulations. Dispose of contents/container in accordance with licensed collector's sorting instructions.
Additional information	: LWCA (the Netherlands): KGA category 03. Hazardous waste according to Directive 2008/98/EC.
European List of Waste (LoW, EC 2000/532)	: 07 01 04* - other organic solvents, washing liquids and mother liquors

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR)	: Not applicable
UN-No. (IMDG)	: Not applicable
UN-No. (IATA)	: Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	: Not applicable
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IMDG

Transport hazard class(es) (IMDG)	: Not applicable
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IATA

Transport hazard class(es) (IATA)	: Not applicable
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14.4. Packing group

Packing group (ADR)	: Not applicable
Packing group (IMDG)	: Not applicable
Packing group (IATA)	: Not applicable

14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No

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Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Transport regulations (ADR) : Not subject

- Transport by sea

Transport regulations (IMDG) : Not subject

- Air transport

Transport regulations (IATA) : Not subject

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

Contains no substance(s) listed on the REACH Candidate List

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

VOC content : 0 %

15.1.2. National regulations

Germany

Regulatory reference : WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1)

WGK remark : Classification in compliance with Verwaltungsvorschriftwassergefährdender Stoffe (VwVwS) of 27 July 2005

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

SZW-lijst van reprotoxische stoffen – Borstvoeding : None of the components are listed

SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : None of the components are listed

SZW-lijst van reprotoxische stoffen – Ontwikkeling : None of the components are listed

Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

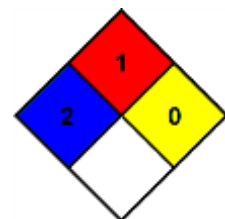
No chemical safety assessment has been carried out

SECTION 16: Other information

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard : 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
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HD Premium 50 % Prediluted

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
H302	Harmful if swallowed.

SDS ImproChem Test

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