SAFETY DATA SHEET

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Kylarvätska Extrem koncentrerad

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

Antifreeze fluid, concentrated

1.3 Details of the supplier of the safety data sheet

Supplier

Agro Oil
Box 30192
104 25 Stockholm, Sweden
Telephone +46 (0)10-556 00 00
E-mail info@agrol.se

1.4 Emergency telephone number

Sweden

Swedish Poisons Information Centre	010-456 67 00 (Open 24/7)
Emergency	112 (Ask for the Posion Centre)

Finland

Poison Information Centre	09-471 977 (Open 24/7)
Emergency	112 (Ask for the Poison Centre)

Norway

Norwegian Poison Information Centre	22 59 13 00 (Open 24/7)
Emergency	113 (Ask for the Poison Centre)

SECTION 2. HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

Acute Tox. 4, H302
STOT RE 2, H373

2.2 Label elements

Hazard pictograms

Signal word
WARNING

Contains
Ethane-1,2-diol

Hazard statements

H302	Harmful if swallowed
H373	May cause damage to organs (kidney) through prolonged or repeated exposure.

Precautionary statements

P102	Keep out of reach of children.
P260	Do not breathe dust/fume/ gas/mist/vapours/spray
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
P330	Rinse mouth.
P501	Dispose of contents/container to approved waste disposal facility in accordance with local regulations

2.3 Other hazards
Ethylene glycol can be absorbed through the skin.

SECTION 3. COMPOSITION/INFORMATION OM INGREDIENTS

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

Name	EC no.	CAS no.	REACH reg no.	% (w/w)	Hazard statements
Ethane-1,2-diol (ethylene glycol)	203-473-3	107-21-1	01-2119456816-28	>85-<95	Acute Tox. 4, H302 STOT RE 2, H373

Also contains a colourant which does not affect the classification.

Other information

For a full text of hazard statements: see Section 16

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures

After inhalation:	Fresh air and rest. If difficulties in breathing get medical advice.
After eye contact:	Rinse the eyes gently with water. If symptoms persist consult a doctor.
After skin contact:	Take off contaminated clothing. Wash skin with soap and water
After ingestion:	Rinse mouth and drink water. Contact a doctor if experiencing symptoms.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation:	The vapours may at high concentrations cause dizziness, drowsiness and headache.
Eye:	May cause slight eye irritation.
Skin:	Causes degreasing. May cause mild skin irritation.
Ingestion:	Small amounts are not expected to produce any acute symptoms. Large amounts may cause nausea and vomiting. Repeated exposure through ingestion affects

kidneys and the central nervous system and may cause headache, dizziness, nausea, vomiting, confusion and in serious cases, unconsciousness.

4.3 Indication of any immediate medical attention and special treatment needed

-

SECTION 5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Can be extinguished using dry powder, foam, carbon dioxide (CO_2) or water fog.
Unsuitable extinguishing media: Do not use direct water jet.

5.2 Special hazards arising from the substance or mixture

In case of fire, toxic and corrosive gases may develop.

5.3 Advice for firefighters

Precautions according to the standard procedure for chemical fires. Use water **only** to cool down containers that are exposed to fire.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with eyes and skin.

6.2 Environmental precautions

Do not allow discharge to enter sewers, watercourses or the ground.

6.3 Methods and material for containment and cleaning up

Contain/absorb spillages with suitable absorbent material such as sand or active clay.
Disposal of waste must be in accordance with national regulations.

6.4 Reference to other sections

See Section 8 for Exposure controls / personal protection and Section 13 for disposal considerations..

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid prolonged or repeated contact with skin. Avoid inhalation of vapours, mist or fumes.
Do not reuse soiled clothing unless laundered.

7.2 Conditions for safe storage, including any incompatibilities

Containers must be kept tightly closed and sealed. Keep cool and dry. The product is hygroscopic.
Keep out of reach of children.

7.3 Specifik end use

See Section 1.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Exposure limits according to National regulations

AFS 2018:1, Sweden

Substance	Cas nr	NGV	NGV	KTV	KTV	Note	Year
		ppm	mg/m3	ppm	mg/m3		
Ethane-1,2-diol	107-21-1	10	25	40	104	H, 26	2015

Note:
H: The substance can be easily absorbed through the skin
26: The limit value applies to the total concentration of vapour and aerosol.

654/2020, Finland

Substance	Cas nr	HTP 8 hours		HTP 15 minutes		Note	Year
		ppm	mg/m3	ppm	mg/m3		
Ethane-1,2-diol	107-21-1	20	50	40	100	hud	2002

Note:
Skin: Substance where the significance of skin exposure can be very large given the total exposure.

Regulations concerning Action and Limit values, Norway

Name	Cas nr	ppm	mg/m3	Note	Last amended
Ethane-1,2-diol	107-21-1	20	52	HE[1]	2012
		40	104	S	

[1] The limit value is based on the calculated aggregate sum of the gaseous and particulate (aerosol) form of the substance.

Note:
HE: Chemicals that can be absorbed through the skin. The EU has adopted a recommended limit value for the substance.
S: The short-term exposure limit: the average concentration of a chemical substance in an employee's breathing zone that must not be exceeded over a given reference period. The reference period is 15 minutes unless otherwise specified.

Other information

DNEL:

Ethane-1,2-diol	Worker				General public			
	Long term exposure				Long term exposure			
	Systemic effects		Local effects		Systemic effects		Local effects	
Inhalation	-	mg/m^3	35	mg/m^3	-	mg/m^3	7	mg/m^3
Dermal	106	mg/kg	-	mg/kg	53	mg/kg	-	mg/kg

PNEC:

Ethane-1,2-diol	Freshwater:	10	mg/l
	Marine water:	1	mg/l
	Intermittent release:	10	mg/l
	Sediment (freshwater):	20,9	mg/kg
	Soil:	1,53	mg/kg
	Sewage treatment plant:	199,5	mg/l

8.2 Exposure controls

Appropriate technical measures

Ensure adequate ventilation. Methods are designed to prevent direct contact.

Personal protection

Respiratory protection:	Use respiratory protection when insufficient ventilation. Respiratory mask with filter A (brown).
Eye/face protection:	Wear eye protection (safety glasses with side shields or full face shield) when risk of splashing.
Skin protection:	Wear protective gloves (nitrile, butyl rubber) and protective clothing.

Environmental exposure control

Prevent discharges into drains.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Bluegreen
Odour:	Weak
Melting point / freezing point:	<-18 °C
Boiling point or initial boiling point and boiling range:	> 165 °C
Flammability:	The product is not classified as flammable but can ignite and maintain a fire.
Upper / lower flammability or explosive limits:	No information
Flash point:	>126 °C
Auto-ignition temperature:	Not self-igniting
Decomposition temperature:	Not available
pH	approx. 7
Kinematic viscosity:	>20 mm^2/s
Solubility:	Completely soluble in water.
Partition coefficient n-octanol/water:	Not available
Vapour pressure	0,2 hPa (20 °C)
Density and/or relative density:	1,122 g/cm^3 (20 °C)
Relative vapour density:	2,6 (air = 1)
Particle characteristics:	Not relevant (liquid)

9.2 Other information

9.2.1. Information with regard to physical hazard classes

Not relevant

9.2.2 Other safety characteristics
Not relevant

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity
The product is not reactive under normal conditions.

10.2 Chemical stability
The product is stable under normal conditions.

10.3 Possibility of hazardous reactions
None known.

10.4 Conditions to avoid
None specific.

10.5 Incompatible materials
Avoid strong acids and bases.

10.6 Hazardous decomposition products
No hazardous decomposition products known.

SECTION 11. TOXIKOLOGICAL INFORMATION

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

Acute toxicity
Harmful if swallowed.

Ethane-1,2-diol	$LD_{,}$ Oral, human, ca 1600 mg /kg LD_{50} Dermal Rabbit: < 2000 mg/kg

Corrosive / irritating on the skin
Causes degreasing. May cause mild skin irritation. Ethylene glycol can be absorbed through the skin.

Serious eye damage / irritation
May cause slight eye irritation.

Respiratory / skin sensitization
Not considered sensitizing.

Germ cell mutagenicity
It is considered not to cause mutations in germ cells.

Carcinogenicity
Not considered to be carcinogenic.

Toxic to reproduction
Not considered to be toxic to reproduction.

Specific organ toxicity-single exposure

The vapours may at high concentrations cause dizziness, drowsiness and headache. The central nervous system and kidneys are affected if ingested.

Specific organ toxicity-repeated exposure

May cause damage to organs (kidney) through prolonged or repeated exposure.

Aspiration Hazard

Considered not to be an aspiration hazard.

11.2 Information on other hazards

Endocrine disrupting properties

Based on available information, this mixture contains no substance which is identified as having endocrine disrupting properties according to Regulation (EU) 2017/2100 or (EU) 2018/605 in concentrations ≥ 0.1% (w/w).

SECTION 12. ECOLOGICAL INFORMATION

The product is not classified as hazardous to the environment.

12.1 Toxicity

Ethane-1,2-diol	LC_{50}, Fish, 96 h: 72 860 mg/l (Pimephales promelas) EC_{50}, Daphnia, 48 h: > 100 mg/l (Daphnia magna) EC_{50}, Algae, 96 h: 6 500 - 13 000 mg/l (Selenastrum capricornutum)

12.2 Persistence and degradability

Ethane-1,2-diol: Degradability: > 70 % DOC, (28 d.) (OECD 301A)
Readily degradable

12.3 Bioaccumulative potential

Not considered to bioackumulate.

12.4 Mobility in soil

The product is soluble in water and is considered to be mobile in soil.

12.5 Results of PBT och vPvB assessment

Based on available information, this mixture contains no substance that meets the PBT or vPvB criteria according to Annex XIII to Regulation (EC) No. 1907/2006 (REACH).

12.6 Endocrine disrupting properties

Based on available information, this mixture contains no substance which is identified as having endocrine disrupting properties according to Regulation (EU) 2017/2100 or (EU) 2018/605 in concentrations ≥ 0.1% (w/w).

12.7 Other adverse efffects

None known.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Product residues, spills etc. are classified as hazardous waste. Disposal, transportation, storage and handling of the waste must be in accordance with national regulations. Product waste must not be allowed to contaminate soil or water, or released into the environment.

Prevent discharge into drains.

Classified as hazardous waste with hazard class HP 5 (Specific organ toxicity (STOT) and HP 6 (Acute toxicity).

Suggested waste code (EWC): 16 01 14* antifreeze fluids containing hazardous substances.

Packaging

EWC-code: 15 01 02, Plastic packaging
EWC-code: 15 01 04, Metallic packaging

Packaging containing product residues that are not drip dry must be handled as hazardous waste and disposed of properly sealed.
EWC-code: 15 01 10*, Packaging containing residues of or contaminated by hazardous substances.

SECTION 14. TRANSPORT INFORMATION

The product is not covered by the regulations for the transport of dangerous goods.

	ADR/RID	ADN	IMDG	IATA /ICAO
14.1 UN-number or ID number	N/A	N/A	N/A	N/A
14.2 UN proper shipping name	N/A	N/A	N/A	N/A
14.3 Transport hazard class	N/A	N/A	N/A	N/A
14.4 Packing group	N/A	N/A	N/A	N/A
14.5 Environmental hazards	N/A	N/A	N/A	N/A

14.6 Special precautions for user

Not applicable.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

SECTION 15. REGULATORY INFORMATION

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

This safety data sheet is prepared in accordance with the EUROPEAN PARLIAMENT AND COUNCIL REGULATION (EC) No 1907/2006 of 18 December 2006 concerning the registration, evaluation, authorization and restriction of chemicals (REACH) and Commission Regulation (EU) No 2020/878 of 18 June 2020 amending the European Parliament and Council Regulation (EC) No 1907/2006 on the registration, evaluation, authorization and restriction of chemicals (REACH).

Regulations
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substance and mixtures (CLP).

Commission Regulation (EU) No 1357/2014 of 18 December 2014 replacing Annex III to Directive 2008/98/EC of the European Parliament and of the Council on waste.

Sweden
AFS 2011:19, amended by AFS 2018:2 (Chemical risks at work)
AFS 2018:1 (Occupational exposure limits)
KIFS 2017:7 (Chemical products and Biotechnicological organisms Regulation)

Finland
654/2020 (Occupational exposure limits)
715/2001 (Chemical risks at work)

Norway
Regulations concerning the design and layout of workplaces and work premises (the Workplace Regulations)

Regulations concerning action and limit values for physical and chemical agents in the working environment and classified biological agents (Regulations concerning Action and Limit values)

Norwegian Product declaration number: 651016

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16. OTHER INFORMATION

Please note! This safety data sheet is an English translation applicable for Sweden, Norway and Finland. A safety data sheet in local language is also available. Please refer to the Agro Oil webshop for safety data sheets in local languages. https://webshop.agrol.se/

Classification procedure

Test data is prioritized when classifying the product. When no test data are available the classification criteria in Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures (CLP) have been used.

Hazard statements in Section 3

H302	Harmful if swallowed.
H373	May cause damage to organs (kidney) through prolonged or repeated exposure.

Abbreviations

ADN	International Carriage of Dangerous Goods by Inland Waterways
ADR	International Carriage of Dangerous Goods by Road
BCF	Bio Concentration Factor
BOD5/COD	Biological Oxygen Demand 5 days/Chemical Oxygen demand
BOD (MITI)	Biological Oxygen Demand
DNEL	Derived No Effect Level
EC_{50}	Effective Concentration (concentration that gives response in 50% of test subjects)
ECHA	European Chemical Agency
EmS	Emergency Schedule Information
HTP	Exposure value, concentrations of impurities in workplace air known to be harmful.
IARC	International Agency for Research on Cancer
IATA/ICAO	IATA Dangerous goods regulation / ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air
IC_{50}	Inhibitory Concentration (concentration that shows inhibition in 50% of the test subjects)
IMDG	International Maritime Dangerous Goods Code
KTV	Short term exposure values, normally 15 minutes
LC_{50}	Lethal Concentration (concentration causing the death of 50% of a group of test animals)
LD_{50}	Lethal Dose (dose causing the death of 50% of a group of test animals)
Log Pow	Partition coefficient of octanol - water
MITI	Ministry of International Trade and Industry, Japan
NGV	Long term exposure value, normally 8 hours.
NOEC	No Observed Effect Concentration
NOAEC	No Observed Adverse Effect Concentration
NOAEL	No Observed Adverse Effect Level
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bio-accumulative and Toxic substance
PNEC	Predicted No Effect Concentration
RID	International Carriage of Dangerous Goods by Rail
STEL	Short Term Exposure Limit
SVHC	Substance of Very High Concern
TWA	Time-weighted average
vPvB	very Persistent and very Bioaccumulative

Advice on education

The user of this product should have training that is relevant to the properties of the product and relevant use.

References

Information from the supplier: SDS in Swedish, dated 2021-08-17.
Classification & Labelling Inventory Database, ECHA.
Registered substances, ECHA.

Version description

The information has been modified under the following sections in the safety data sheet: 15,16

The safety data sheet is dated 16.05.2022 and replaces the version dated 01.12.2021.