SAFETY DATA SHEET

In accordance with 1907/2006 annex II 2015/830 and 1272/2008
(All references to EU regulations and directives are abbreviated into only the numeric term)
Revision date 2019-08-06
Replaces issued SDS 2017-08-31
Version number 6.0

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

1.1. Product identifier

Trade name	Glykol Blå

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

Identified uses	Antifreeze

1.3. Details of the supplier of the safety data sheet

Company	Arom-dekor Kemi AB Europavägen 1 51291 SEXDREGA Sweden
Telephone	0320 60500
E-mail	info@aromdekor.se

1.4. Emergency telephone number

Acute cases: Call 112, request poison information.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Acute toxicity (Category 4 oral), H302
Specific target organ toxicity - repeated exposure (Category 2), H373

2.2. Label elements

Hazard pictogram

Signal word	Warning
Hazard statements	
H302	Harmful if swallowed
H373	May cause damage to organs through prolonged or repeated exposure
Precautionary statements	
P101	If medical advice is needed, have product container or label at hand
P102	Keep out of reach of children
P270	Do not eat, drink or smoke when using this product
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P501	Dispose of contents and container to authorised waste disposal facility

Supplemental hazard information

Contains: ETHYLENE GLYCOLE

2.3. Other hazards

This product does not contain any substances that are assessed to be a PBT or a vPvB

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Note that the table shows known hazards of the ingredients in pure form. These hazards are reduced or eliminated when mixed or diluted, see Section 16d.

Constituent	Classification	Concentration
ETHYLENE GLYCOLE		
CAS No: 107-21-1 EC No: 203-473-3 Index No: 603-027-00-1	Acute Tox 4*oral*, STOT RE 2; H302, H373	95 %

Explanations to the classification and labelling of the ingredients are given in Section 16e. Official abbreviations are printed in normal font. Text in italics are specifications and/or complements used in the calculation of the classification of this mixture, see Section 16b.

SECTION 4: First aid measures

4.1. Description of first aid measures

Generally

Immediately call a POISON CENTER or doctor/physician.

Upon breathing in

Allow the injured person to rest in a warm place with fresh air, if symptoms persist seek medical attention.

Upon eye contact

Rinse the eye for several minutes with lukewarm water. If irritation persists call a doctor.

Upon skin contact

Normal washing of the skin is considered sufficient; If nevertheless symptoms do occur, contact a physician.
Remove contaminated clothes.

Upon ingestion

First rinse your mouth carefully and SPIT OUT the water. Then drink at least half a litre of water, if possible with active carbon, and then induce vomiting. Contact Poison Information Centre (emergency number 112).

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

Generally

May cause damage to organs through prolonged or repeated exposure.

Upon ingestion

Harmful if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed

When contacting a physician, take this SDS with you.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Recommended extinguishing agents

Extinguish with water mist, powder, carbon dioxide or alcoholresistant foam.

Unsuitable extinguishing agents

May not be extinguished with water dispersed under high pressure.

5.2. Special hazards arising from the substance or mixture

Produces fumes containing harmful gases (carbon monoxide and carbon dioxide) when burning, and, in case of incomplete combustion, aldehydes and other toxic, harmful, irritant or environmentally harmful substances.
Note that the extinguishing water may contain toxic substances or other hazardous substances.

5.3. Advice for fire-fighters

Protective measures should be taken regarding other material at the site of the fire.
In case of fire use a respirator mask.
Wear full protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid inhalation and exposure to skin and eyes.

Gas mask with an A type filter (brown) may be required when decontaminating spillage.

6.2. Environmental precautions

Avoid release to drains, soil or watercourses.

6.3. Methods and material for containment and cleaning up

Absorb the liquid with an inert absorbent, vermiculite, for example. Collect the material for disposal at a waste disposal facility.

Residues left behind after cleaning shall be treated as hazardous waste. For further information, contact the local authority sanitisation works. Present this safety data sheet.

6.4. Reference to other sections

See section 8 and 13 for personal protection equipment and disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not inhale the fumes and avoid exposure to skin, eyes and clothing.

Store this product separately from food items and keep it out of the reach of children and pets.

Handle in premises with good ventilation.

Keep out of reach of children and pets.

Do not eat, drink or smoke in premises where this product is handled.

Work in order to avoid spillage. If spillage does occur, address it immediately in accordance with the directions specified in Section 6 of this safety data sheet.

Wash your hands after using the product.

7.2. Conditions for safe storage, including any incompatibilities

Store in a well-ventilated space.

The product should be stored in a manner which prevents hazards to health and the environment. Avoid exposure to humans and animals and do not discharge the product in a sensitive environment.

Store only in the original package.

Do not store above normal room temperature.

7.3. Specific end uses

See identified uses in Section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. National limit values

ETHYLENE GLYCOLE

United Kingdom (EH40/2005)

Time-weighted-average exposure limit (TWA) 20 ppm (Vapour) / 52 mg/m^3 (Vapour) / 10 mg/m^3 (Particulates)

Short term exposure limit (STEL) 40 ppm (Vapour) / 104 mg/m^3 (Vapour)

Note Sk

Explanations of abbreviations are given in Section 16b

DNEL
ETHYLENE GLYCOLE

	Type of exposure	Route of exposure	Value
Worker	Chronic Systemic	Dermal	106 mg/kg bw
Worker	Acute Systemic	Inhalation	35 mg/m^3
Worker	Chronic Local	Inhalation	35 mg/m^3
Consumer	Acute Systemic	Inhalation	7 mg/m^3
Consumer	Chronic Local	Inhalation	7 mg/m^3
Consumer	Chronic Systemic	Dermal	53 mg/kg bw

PNEC
ETHYLENE GLYCOLE

Environmental protection target	PNEC value
Fresh water	10 mg/L
Freshwater sediments	20.9 mg/L
Marine water	1 mg/L
Marine sediments	3.7 mg/kg dw
Microorganisms in sewage treatment	199.5 mg/L
Soil (agricultural)	1.53 mg/L

8.2. Exposure controls

In terms of minimizing risks, attention must be paid to the health hazards (see Sections 2, 3 and 10) of this product or any of its ingredients according to EU directives 89/391 and 98/24 and national occupational legislation.

8.2.1. Appropriate engineering controls

The place of work shall primarily be planned so that personal protective equipment is only required on irregular occasions, in case of servicing or breakdown, for example.

Handle in premises which have modern ventilation standards.

Gas masks with filters, intended in the case of dangerous chemicals, should be available so that these can be put on outside the location of where spillage or accident might occur.

Emergency showers and eye-rinsing facilities must be available at the workplace.

Maintenance and service of personal protective equipment shall be included in the works plan for internal supervision. All inspections and remedial measures shall be documented.

Eye/face protection

Eye protection should be worn if there is any danger of direct exposure or splashing.

Skin protection

Protect all exposed skin from coming into contact with the product.

Use suitable protective clothing.

Use protective gloves of butyl rubber, Viton or fluorine rubber, or get advice from an occupational medical expert about alternative materials. Show this safety data sheet.

Work without protective gloves should only occur when very small amounts are handled.

Respiratory protection

A breathing mask of the A filter (brown) type, may be required.

8.2.3. Environmental exposure controls

For limitation of environmental exposure, see Section 12.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Appearance	Form: liquid. Colour: blue.
b) Odour	no smell or uncharacteristic smell
c) Odour threshold	Not indicated
d) pH	Not indicated
e) Melting point/freezing point	Not indicated
f) Initial boiling point and boiling range	165 °C
g) Flash point	102.0 °C
h) Evaporation rate	Not indicated
i) Flammability (solid, gas)	Not applicable
j) Upper/lower flammability or explosive limits	Lower explosion limit 3.2% Upper explosion limit 15.3%
k) Vapour pressure	Not indicated
l) Vapour density	2.10
m) Relative density	1.130 kg/L
n) Solubility	Solubility in water: Unlimited solubility Soluble in acetone Soluble in ethanol Soluble in Acetic acid Soluble in Pyridine Soluble in Glycerol
o) Partition coefficient: n-octanol/water	Not applicable
p) Auto-ignition temperature	432 °C
q) Decomposition temperature	Not indicated
r) Viscosity	0.021 Pa·s
s) Explosive properties	Not applicable
t) Oxidising properties	Not applicable

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product contains no substances which can lead to hazardous reactions at normal use.

10.2. Chemical stability

The product is stable at normal storage and handling conditions.

10.3. Possibility of hazardous reactions

No hazardous reactions known.

10.4. Conditions to avoid

Protect from heat and direct sunlight.

10.5. Incompatible materials

Avoid contact with zinc and galvanized materials.

10.6. Hazardous decomposition products

Does not decompose to hazardous substances.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on possible health hazards are based on experience and / or toxicological properties of several components in the product.

Acute toxicity

The product is classified as acutely toxic.
Harmful if swallowed.

ETHYLENE GLYCOLE

LD50 rabbit 24h: > 2000 mg/kg Dermally
LC50 rat 4h: > 2.5 mg/L Inhalation
LD50 rat 24h: 4700 mg/kg Orally

Skin corrosion/irritation

The product is neither corrosive nor irritant.

Serious eye damage/irritation

The mixture is judged as a whole and is classified to be neither corrosive nor irritant to the eyes. Mild irritation may occur on prolonged or repeated exposure.

Respiratory or skin sensitisation

The product is not classified as sensitising.

Germ cell mutagenicity

The product is not classified as mutagen.

Carcinogenicity

The product is not classified as carcinogenic.

Reproductive toxicity

The product is not classified as a reproductive toxicant .

STOT-single exposure

No known hazards for occasional exposure.

STOT-repeated exposure

Repeated exposure may cause organ damage.

Aspiration hazard

The product is not classified as being toxic for aspiration.

SECTION 12: Ecological information

12.1. Toxicity

The product is classified as being hazardous to health, or contains a substance which is hazardous to health. Harmful impact on animals, plants and micro-organisms in the local environment cannot be ruled out.

ETHYLENE GLYCOLE

LC50 Rainbow trout (Oncorhynchus mykiss) 96h: > 18500 mg/L
LC50 fathead minnow (Pimephales promelas) 96h: 72860 mg/l
EC50 Freshwater water flea (Daphnia magna) 48 h: > 100 mg/l
EC50 Freshwater water flea (Daphnia magna) 24h: > 74000 mg/L
EC50 Algae (Selenastrum capricornutum) 96h: 1 - 7500 mg/L

12.2. Persistence and degradability

The product degrades easily in the natural environment.

12.3. Bioaccumulative potential

Neither this product, nor its contents, accumulates in nature.

12.4. Mobility in soil

The product is miscible with water and is therefore variable in soil and water.

12.5. Results of PBT and vPvB assessment

This product does not contain any substances that are assessed to be a PBT or a vPvB.

12.6. Other adverse effects

Data lacking.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Waste handling of the product

Discarded products must be disposed of as hazardous waste in accordance with regulations.
Not completely emptied packaging can contain remnants of dangerous substances and should therefore be handled as hazardous waste according to the above. Completely emptied packaging can be recycled.
Avoid discharge into sewers.
Observe local regulations.
See also national waste regulations.

Classification according to 2008/98

Recommended LoW-code: 07 01 04 Other organicsolvents, washing liquids and mother liquors

SECTION 14: Transport information

Where not otherwise stated the information applies to all of the UN Model Regulations, i.e. ADR (road), RID (railway), ADN (inland waterways), IMDG (sea), and ICAO (IATA) (air).

14.1. UN number

Not classified as dangerous goods

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

14.8 Other transport information

Not applicable

SECTION 15: Regulatory information

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

Not indicated.

15.2. Chemical safety assessment

Assessment and chemical safety report in accordance with 1907/2006 Annex I has not yet been performed.

SECTION 16: Other information

16a. Indication of where changes have been made to the previous version of the safety data sheet
Revisions of this document

Earlier versions

2017-08-31 Changes in section(s) 5, 6, 7, 11, 13.

16b. Legend to abbreviations and acronyms used in the safety data sheet
Full texts for Hazard Class and Category Code mentioned in section 3

Acute Tox 4*oral*	Acute toxicity (Category 4 oral)
STOT RE 2	Specific target organ toxicity - repeated exposure (Category 2)

Explanations of the abbreviations in Section 8
United Kingdom (EH40/2005 (Third edition, published 2018))

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

Explanations of the abbreviations in Section 14

ADR	European Agreement concerning the International Transport of Dangerous Goods by Road
RID	Regulations concerning the International Transport of Dangerous Goods by Rail
IMDG	International Maritime Dangerous Goods Code
ICAO	International Civil Aviation Organization (ICAO, 999 University Street, Montreal, Quebec H3C 5H7, Canada)
IATA	The International Air Transport Association

16c. Key literature references and sources for data
Sources for data

Primary data for the calculation of the hazards has preferentially been taken from the official European classification list, 1272/2008 Annex I , as updated to 2019-08-06.
Where such data was not available, alternative documentation used to establish the official classification was used, e.g. IUCLID (International Uniform Chemical Information Database). As a second alternative, information was used from reputable international chemical industries, and as a third alternative other available information was used, e.g. material safety data sheets from other suppliers or information from non-profit associations, where reliability of the source was assessed by expert opinion. If, in spite of this, reliable information could not be sourced, the hazards were assessed by expert opinions based on the known hazards of similar substances, and according to the principles in 1907/2006 and 1272/2008.

Full texts for Regulations mentioned in this Safety Data Sheet

1907/2006	REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC
2015/830	COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
1272/2008	REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
EH40/2005	EH40/2005 Workplace exposure limits
89/391	COUNCIL DIRECTIVE (89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work
98/24	COUNCIL DIRECTIVE 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work (fourteenth individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC)
2008/98	DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives
1907/2006	REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

16d. Methods of evaluating information referred to in 1272/2008 Article 9 which was used for the purpose of classification

Hazard calculation for this mixture has been performed as a cumulative assessment with the aid of expert assessments in accordance with 1272/2008 Annex I , where all available information which may be significant to establishing the hazards of the mixture was assessed together, and in accordance with 1907/2006 Annex XI .

16e. List of relevant hazard statements and/or precautionary statements
Full texts for hazard statements mentioned in section 3

H302 Harmful if swallowed

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>

16f. Advice on any training appropriate for workers to ensure protection of human health and the environment
Warning for misuse

This product can cause injuries if not used properly. The manufacturer, the distributor or the supplier are not responsible for adverse effects if the product is not handled in accordance with its intended use.

Other relevant information

Not indicated

Editorial information

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