

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 2019-10-02
Replaces issued SDS 2017-10-30
Version number 4.0



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

1.1. Product identifier

Trade name Glykol SuperCelsius

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
Irritates eyes (Category 2), H319
Specific target organ toxicity - repeated exposure (Category 2), H373

2.2. Label elements

Hazard pictogram



Signal word	Warning
Hazard statements	
H302	Harmful if swallowed
H319	Causes serious eye irritation
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
P280	Wear eye protection
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P314	Get medical advice/attention 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 REACH: 01-2119456816-28	Acute Tox <i>4oral</i> , STOT RE 2; H302, H373	95 %
POTASSIUM 2-ETHYLHEXANOATE		
CAS No: 3164-85-0 EC No: 221-625-7 REACH: 01-2119980714-29	Skin Irrit 2, Eye Dam 1, Repr 2 <i>d</i> ; H315, H318, H361 <i>d</i>	<3 %
POTASSIUM SUCCINATE		
CAS No: 22445-04-1 EC No: 607-079-6	Skin Irrit 2, Eye Irrit 2, STOT SE 3 <i>resp</i> ; H315, H319, H335	<1 %

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

Remove contact lenses immediately if possible.

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

Upon skin contact

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

Wash the skin with soap and water.

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

The substance can easily be absorbed through the skin.

May cause damage to organs through prolonged or repeated exposure.

Upon eye contact

Irritates the eyes.

Upon ingestion

Harmful if swallowed.

Note that the symptoms may be delayed.

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

Upon contact with a doctor, make sure to have the label or this safety data sheet with you.

Contains ethylene glycol and/or diethylene glycol. May cause renal injury upon ingestion.

Early treatment with ethanol may eliminate toxic effects of ethylene glycol such as metabolic acidosis and kidney damage.

A more effective intravenous antidote for clinical use is 4-methylpyrazole. 4-methylpyrazole is a potent inhibitor of alcohol dehydrogenases, and effectively blocks the formation of toxic metabolites of ethylene glycol. It may be used to decrease the metabolic consequences of ethylene glycol poisoning before metabolic acidosis coma, seizures, and renal failure have occurred.

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.

In case of spillage in protected water, call the emergency services immediately, tel. 112 (in Europe).

Keep unauthorized and unprotected people at a safe distance.

Use recommended safety equipment, see section 8.

Ensure good ventilation.

Use a chemical protection suit when cleaning up large spills.

6.2. Environmental precautions

Avoid release to drains, soil or watercourses.

Please contact involved authorities if unintended release occurs.

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

Keep out of reach of children and pets.

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

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

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

Handle in premises with good ventilation.

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.

Use recommended safety equipment, see section 8.

Remove contaminated clothing.

Wash contaminated clothing before reuse.

Keep away from incompatible products.

7.2. Conditions for safe storage, including any incompatibilities

Keep out of reach for children.

Store separately from food and animal fodder, incl. utensils or surfaces which have been in contact with these things.

Store tightly, in original packaging.

Store in a well-ventilated area, not above eye-level.

Do not store above normal room temperature.

Always use sealed and visibly labeled packages.

Store in a locked location.

Do not store close to incompatible materials (see section 10.5).

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/m³ (Vapour) / 10 mg/m³ (Particulates)

Short term exposure limit (STEL) 40 ppm (Vapour) / 104 mg/m³ (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

POTASSIUM 2-ETHYLHEXANOATE

	Type of exposure	Route of exposure	Value
Consumer	Chronic Systemic	Inhalation	8 mg/m ³
Worker	Chronic Systemic	Dermal	12 mg/kg bw
Worker	Chronic Systemic	Inhalation	32 mg/m ³
Consumer	Chronic Systemic	Oral	2.5 mg/kg bw
Consumer	Chronic Systemic	Dermal	6 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

POTASSIUM 2-ETHYLHEXANOATE

Environmental protection target	PNEC value
Fresh water	10 mg/L
Freshwater sediments	20.9 mg/L
Marine water	1 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.

Wash hands thoroughly after handling and before food intake or smoking.

8.2.1. Appropriate engineering controls

Handle in premises which have modern ventilation standards.

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

Eye/face protection

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

Skin protection

Use suitable protective clothing.

Use protective gloves fulfilling the standard EN374 if there is a risk of direct contact.

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.

Respiratory protection

Use proper protective breathing equipment in case of insufficient ventilation.

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

8.2.3. Environmental exposure controls

Work with the product should take place in such a way that the product does not get into drains, waterways, soil and air.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Appearance	Form: liquid. Colour: Transparent.
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
n) Solubility	Solubility in water: Unlimited solubility
o) Partition coefficient: n-octanol/water	Not applicable
p) Auto-ignition temperature	432 °C
q) Decomposition temperature	Not indicated
r) Viscosity	Not indicated
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

Note that the product is hazardous to health.

Contains ethylene glycol and/or diethylene glycol. May cause renal injury upon ingestion.

Acute toxicity

The product is a health hazard.

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

Serious eye damage/irritation

Eye contact may cause burning pain or irritation.

Respiratory or skin sensitisation

The product does not contain any known allergens.

Germ cell mutagenicity

No mutagenic effects have been reported for the substance in this mixture.

Carcinogenicity

No carcinogenic effects have been reported for the substances in this product.

Reproductive toxicity

No toxic effects to reproduction have been reported for the substances in this mixture.

STOT-single exposure

The criteria for classification cannot be considered fulfilled based on available data.

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

Prevent release on land, in water and drains.

The product is not to be labelled as an environmental hazard. However, it is not inconceivable that large emissions, or repeated small emissions, can have a harmful effect on the environment.

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
EC50 Ceriodaphnia dubia 48h: 10000 mg/l
NOEC Ceriodaphnia dubia 7d: 3469 mg/l
NOEC Rainbow trout (Oncorhynchus mykiss) 12d: 14692 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.

Small quantities are not normally recycled. In the case of larger quantities, contact the distributor.

Final disposal of this product should be carried out by a company authorised to deal with hazardous waste.

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.

May not be disposed of with household waste.

Also take local regulations for dealing with waste into account.

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

2017-10-30 Changes in section(s) 2, 3, 4, 6, 8, 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 <i>4oral</i>	Acute toxicity (Category 4 oral)
STOT RE 2	Specific target organ toxicity - repeated exposure (Category 2)
Skin Irrit 2	Skin Irritant (Category 2)
Eye Dam 1	Irreversible Eye Effects (Category 1)
Repr <i>2d</i>	Suspected of damaging the unborn child (Category 2 Route unknown)
Eye Irrit 2	Irritates eyes (Category 2)
STOT SE <i>3resp</i>	Specific target organ toxicity - single exposure; May cause respiratory irritation (Category 3 resp)

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 2019-10-02.

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>
H315 Causes skin irritation
H318 Causes serious eye damage
H361d Suspected of damaging the unborn child
H319 Causes serious eye irritation
H335 May cause respiratory irritation

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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