Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 26.03.2026 Version number 101.01 (replaces version 101.00) Revision: 26.03.2026

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

1.1 Product identifier

Trade name SK cooling medium for chillers. ready-mixed 1:4 Standard

Other trade names:

Article number: 3301960 / 3301965 / 3301967
UFI: GUEA-A09N-700W-YWNE

1.2 Relevant identified uses of the substance or mixture and uses advised against
Restrictions on use:
Restrictions on use according to REGULATION (EC) No 1907/2006 ANNEX XVII apply to this product (see section 15).

Application of the substance / the mixture Heat transfer fluid

1.3 Details of the supplier of the safety data sheet
Manufacturer/Supplier:

Rittal GmbH & Co. KG
Auf dem Stützelberg
D-35745 Herborn

1.4 Emergency telephone number:
This is an English-language document designed for the European region. For the emergency number and other country-specific data, please refer to the specific national versions of this safety data sheet.
Counselling Centre for Poisoning, Mainz

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Tel. (+49) 61 31 / 19 240.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008

Acute Tox. 4 H302 Harmful if swallowed.

STOT RE 2 H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.

2.2 Label elements
Labelling according to Regulation (EC) No 1272/2008
The product is classified and labelled according to the CLP regulation.
Hazard pictograms

GHS07 GHS08

Signal word Warning

Hazard-determining components of labelling:
ethane-1,2-diol
Hazard statements
H302 Harmful if swallowed.
H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.
Precautionary statements
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P330 Rinse mouth.
P314 Get medical advice/attention if you feel unwell.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
Additional information:
According to the current state of knowledge, no synthetic polymer microparticles > 0.01% are contained.
2.3 Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable
vPvB: Not applicable
Determination of endocrine-disrupting properties Not applicable

SECTION 3: Composition/information on ingredients

3.2 Mixtures
Description:
Mixture of the substances listed below with non-hazardous additions (solution in water).
Mixture of the following substances with non-hazardous additions.

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Dangerous components:		
CAS: 107-21-1 EINECS: 203-473-3 Reg.nr.: 01-2119456816-28	ethane-1,2-diol STOT RE 2, H373; Acute Tox. 4, H302 substance with a Community workplace exposure limit	10-25%

SVHC
This preparation does not contain any substances of very high concern (SVHC) in a concentration of ≥ 0.1 % according to Regulation (EC) 1907/2006, Article 57.
Additional information For the wording of the listed hazard phrases refer to section 16.

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SECTION 4: First aid measures

4.1 Description of first aid measures
General advice:
If unconscious, position and transport in stable lateral position.
In case of persistent symptoms receive medical treatment.
After inhalation Supply fresh air; consult doctor in case of symptoms.
After skin contact
Remove contaminated clothing immediately. Wash affected areas with plenty of water und soap. If irritation continues, contact a doctor.
After eye contact
Rinse immediately opened eye for several minutes under running water. Then consult doctor.
After swallowing Rinse out mouth with water.
4.2 Most important symptoms and effects, both acute and delayed
No further relevant information available.
4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing agents Coordinate fire extinguishing measures with the surroundings.
5.2 Special hazards arising from the substance or mixture
Can be released in case of fire:
carbon monoxide (CO)
carbon dioxide (CO2)
5.3 Advice for firefighters
Protective equipment:
See section 8.
Wear self-contained breathing apparatus.
Additional information
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Cool endangered containers in the vicinity with a water spray jet.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures Not required
6.2 Environmental precautions:
Do not allow to enter the ground/soil.
Do not allow to enter drainage system, surface or ground water.
In case of release of larger quantities, inform competent authorities.

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6.3 Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of contaminated material as waste according to point 13.
6.4 Reference to other sections
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling Ensure good ventilation/extraction at the workplace.
Information about protection against explosions and fires: No special measures required.
7.2 Conditions for safe storage, including any incompatibilities
Storage Store in cool, dry conditions in well sealed containers.
Requirements to be met by storerooms and containers:
Observe laws and regulations on the storage and use of substances hazardous to water.
Suitable material for containers and pipes: High-grade steel.
Information about storage in one common storage facility:
Store away from oxidising agents.
Store away from foodstuffs.
Further information about storage conditions: None.
Recommended storage temperature: > 12 °C
7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with critical values that require monitoring at the workplace:	
107-21-1 ethane-1,2-diol	
AGW (Germany)	Long-term value: 26 mg/m³, 10 ppm 2(I);DFG, EU, H, Y, 11
IOELV (EU)	Short-term value: 104 mg/m³, 40 ppm Long-term value: 52 mg/m³, 20 ppm Skin

DNELs		
107-21-1 ethane-1,2-diol		
Dermal	DNEL (worker)	106 mg/kg bw/day (Long-term, systemic effects)
	DNEL (population)	53 mg/kg bw/day (Long-term, systemic effects)
Inhalative	DNEL (worker)	35 mg/m³ (Long-term, local effects)
	DNEL (population)	7 mg/m³ (Long-term, local effects)

PNECs	
107-21-1 ethane-1,2-diol	
PNEC water	10 mg/l (intermittent releases)
	10 mg/l (freshwater)
	1 mg/l (marine water)
PNEC sediment	20,9 mg/kg dw (freshwater)
PNEC sediment	37 mg/kg (freshwater)

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	3,7 mg/kg (marine water)
PNEC STP	199,5 mg/l (sewage plant)
PNEC soil	1,53 mg/kg (soil)

Additional information: The lists that were valid during the compilation were used as basis.

8.2 Exposure controls
Appropriate engineering controls No further data; see section 7.
Individual protection measures, such as personal protective equipment
General protective and hygienic measures
Wash hands during breaks and at the end of the work.
Avoid contact with the eyes and skin.
Gases, fumes and aerosols should not be inhaled.
Breathing equipment:
Not necessary if room is well-ventilated.
Respiratory protection in case of release of vapours/aerosols
Recommended filter device for short term use: Combination filter A-P2
Hand protection
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
Material of gloves
Nitrile rubber, NBR
Butyl rubber, BR
PVC gloves
Rubber gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
Penetration time of glove material
Material of gloves is recommended for a short-term single use to protect from splashes. For permanent usage contact manufacturer of gloves.
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
For the permanent contact gloves made of the following materials are suitable:
Butyl rubber with 0,7 mm coating thickness (recommended: protective index 6, corresponding to > 480 minutes of permeation time according to EN 374).
Eye/face protection
Wear safety goggles with side protection when handling the product openly and if there is a risk of splashing.
Body protection:
Standard protective work clothing. Chemical resistant safety shoes or boots. If skin contact may occur, wear impermeable protective clothing for this solution.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties
General Information

Physical state	Liquid
Colour:	Yellowish
Smell:	Odourless

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Odour threshold:	Not determined
Melting point/freezing point:	Not determined
Boiling point or initial boiling point and boiling range	Not determined
Flammability	Not applicable
Lower and upper explosion limit	
Lower:	3,2 Vol %
Upper:	53 Vol %
Flash point:	104 °C
Auto-ignition temperature:	410 °C
Decomposition temperature:	Not determined
pH at 20 °C	7,5-9,5
pH-value:	
Viscosity:	
Kinematic viscosity	Not determined
dynamic:	Not determined
Solubility	
Water:	miscible
Partition coefficient n-octanol/water (log value)	Not determined
Vapour pressure at 20 °C:	23 hPa (7732-18-5 water, distilled, conductivity or of similar purity)
Density and/or relative density	
Density at 20 °C	1,027 g/cm³
Relative density	Not determined
Vapour density	Not determined

9.2 Other information	
Appearance:	
Form:	Liquid
Important information on protection of health and environment, and on safety.	
Self-inflammability:	Product is not selfigniting.
Explosive properties:	Product is not potentially explosive
Evaporation rate	Not determined

Information with regard to physical hazard classes	
Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Void
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flammable gases in contact with water	Void
Oxidising liquids	Void
Oxidising solids	Void
Organic peroxides	Void

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Corrosive to metals	Void
Desensitised explosives	Void

SECTION 10: Stability and reactivity

10.1 Reactivity No further data; see section 2, 5, 7, 9.
10.2 Chemical stability
Thermal decomposition / conditions to be avoided:
No decomposition if used and stored according to specifications.
Can be distilled without decomposing at normal pressure
10.3 Possibility of hazardous reactions Reacts with oxidizing agents
10.4 Conditions to avoid No further relevant information available.
10.5 Incompatible materials:
Strong acids
strong oxidising agents
10.6 Hazardous decomposition products: No dangerous decomposition products known

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SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
Acute toxicity Harmful if swallowed.

LD/LC50 values that are relevant for classification:		
107-21-1 ethane-1,2-diol		
Dermal	LD50	>3.500 mg/kg (mouse)
		9.530 mg/kg (rabbit)
Inhalative	LC 50	>2,5 mg/l (rat) (6 h)

Primary irritant effect:
Skin corrosion/irritation
Slight irritant, but not sufficient to trigger an EC label.
Based on available data, the classification criteria are not met.
Serious eye damage/irritation Slightly irritant, but not an irritant according to EU directives.
Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
Germ cell mutagenicity Based on available data, the classification criteria are not met.
Carcinogenicity Based on available data, the classification criteria are not met.
Reproductive toxicity Based on available data, the classification criteria are not met.
STOT-single exposure Based on available data, the classification criteria are not met.
STOT-repeated exposure
May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.
Aspiration hazard Based on available data, the classification criteria are not met.
Other information (about experimental toxicology):
In animal experiments (long-term studies), 1,2-ethanediol was found to cause liver and kidney damage, as well as deposits of calcium salts in various tissues.
Additional toxicological information:
For the component 1,2-ethanediol, the following applies:Absorption through the skin is possible. Irritating to the respiratory tract. Oral toxicity following a single dose is moderate. Excessive exposure may cause effects on the central nervous system, cardiopulmonary effects (metabolic acidosis) and renal failure. The estimated lethal dose for the average person is 100 ml.

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11.2 Information on other hazards

Endocrine disrupting properties
None of the ingredients is listed.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:	
107-21-1 ethane-1,2-diol	
LC 50 / 96 h	18.000 mg/l (Oncorhynchus mykiss)
	72.860 mg/l (Pimephales promelas)
EC 50 / 48 h	>100 mg/l (Daphnia magna)
	>10.000 mg/l (Algae)
EC 50 / 96 h	6.500-13.000 mg/l (Selenastrum capricornutum)

12.2 Persistence and degradability	
107-21-1 ethane-1,2-diol	
Biodegradability	90-100 % (OECD 301A) (10 h, OECD 301 A / ISO 7827)

Das Produkt ist biologisch gut abbaubar.
12.3 Bioaccumulative potential Keine Bioakkumulation.
12.4 Mobility in soil No further relevant information available.
12.5 Results of PBT and vPvB assessment
PBT: Not applicable
vPvB: Not applicable
12.6 Endocrine disrupting properties
The product does not contain substances with endocrine disrupting properties.
12.7 Other adverse effects

Respiratory inhibition of communal activated sludge EC 20 (mg/l according to ISO 8192 B):	
107-21-1 ethane-1,2-diol	
EC 20 / 0,5 h	>1.995 mg/l (activated sludge (method OECD 209))

Additional ecological information:
General notes:
Do not allow to enter drainage system, surface or ground water
Water hazard class 1 (Self-assessment): slightly hazardous for water.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
The note below refers to the product left as it is and not to further processed products. When mixed with other products, other disposal routes may be required; if in doubt, consult the supplier of the product or the local authority.
Recommendation
Disposal in accordance with official regulations.
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Waste disposal key number:
Since 1 January 1999, the waste code numbers have not only been product-related but essentially application-related. The waste code number valid for the application can be taken from the European Waste Catalogue.

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Uncleaned packagings: Disposal in accordance with official regulations.
Recommendation:
Empty containers completely and send them cleaned for reconditioning or recycling. Dispose of containers only in consultation with local authorities.
L e v e l o p m e n t : After optimal emptying, immediately return to the supplier tightly closed and without cleaning. Make sure that no foreign matter gets into the packaging!
Other containers: Empty completely and clean for reconditioning or reprocessing.
Recommended cleaning agent: Water, if necessary with cleaning agent.

SECTION 14: Transport information

14.1 UN number or ID number **ADR/RID, IMDG, IATA**	Void
14.2 UN proper shipping name **ADR/RID, IMDG, IATA**	Void
14.3 Transport hazard class(es) **ADR/RID, IMDG, IATA** **Class**	Void
14.4 Packing group **ADR/RID, IMDG, IATA**	Void
14.5 Environmental hazards: **Marine pollutant:**	Not applicable No
14.6 Special precautions for user	Not applicable
14.7 Maritime transport in bulk according to IMO instruments	Not applicable
Transport/Additional information:	Not dangerous according to the above specifications.
UN "Model Regulation":	Void

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Labelling according to Regulation (EC) No 1272/2008
The product is classified and labelled according to the CLP regulation.
Hazard pictograms

GHS07 GHS08

Signal word Warning

Hazard-determining components of labelling:
ethane-1,2-diol
Hazard statements
H302 Harmful if swallowed.

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H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P330 Rinse mouth.
P314 Get medical advice/attention if you feel unwell.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Directive 2012/18/EU
Named dangerous substances - ANNEX I None of the ingredients is listed.

LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV)
None of the ingredients is listed.

REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II
None of the ingredients is listed.

REGULATION (EU) 2019/1148

Regulation (EC) No 273/2004 on drug precursors
None of the ingredients is listed.

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors
None of the ingredients is listed.

National regulations
Information about limitation of use:
Employment restrictions concerning young persons must be observed.

Other regulations, limitations and prohibitive regulations

Substances of very high concern (SVHC) according to REACH, Article 57
None of the ingredients is listed.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This data is based on our present knowledge. However, it shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.
This safety data sheet complies with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2023/707.

Application: Please refer to the technical data sheet for application instructions.

UFI market placements:
Germany, Bulgaria, Denmark, DKE, ESE, European Union, Finland, SFS, France, Greece, Ireland, ISE, Croatia, Latvia, FL, Lithuania, LTE, Malta, Netherland, Norway, Germany, Poland, Portugal, Romania, Sweden, Slovakia, Slovenia, Spain, Czechia, Cyprus, Italy
Relevant phrases
Complete wording of hazard statements and risk phrases (H-phrases) mentioned in section 3. These phrases refer to the constituents. The labelling for this product is stated in section 2.
H302 Harmful if swallowed.

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H373 May cause damage to organs through prolonged or repeated exposure.

Training hints

Employees must be regularly trained in the safe handling of the products based on the information in the safety data sheet and the local conditions of the workplace. National regulations on the training of employees in the handling of hazardous substances must be observed.

Classification according to Regulation (EC) No 1272/2008

The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

Department issuing data specification sheet: See section 1.3: Responding area

Version number of previous version: 101.00

Abbreviations and acronyms:

LEV. Local Exhaust Ventilation
RPE: Respiratory Protective Equipment
RCR: Risk Characterisation Ratio (RCR= PEC/PNEC)
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CLP: Classification, Labelling and Packaging (Regulation (EC) No. 1272/2008)
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
ISO: International Organisation for Standardisation
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
SVHC: Substance of Very High Concern
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity – Category 4
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

*** Data compared to the previous version altered.**