

# Safety Data Sheet

according to UK REACH Regulation

## Kühlflüssigkeit HKF 15.1 MW 65

Revision date: 20.12.2023

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

#### 1.1. Product identifier

Kühlflüssigkeit HKF 15.1 MW 65

UFI: 5T89-R0F8-M000-4CXA

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

##### Use of the substance/mixture

Coolant  
Industrial uses

##### Uses advised against

all uses which are not mentioned above

#### 1.3. Details of the supplier of the safety data sheet

Company name:	Conzelmann Schweißhandelsgesellschaft mbH	
Street:	Siemensstraße 9	
Place:	D-89331 Burgau	
Telephone:	+49 (0) 8222 413880	Telefax: +49 (0) 8222 41388-20
E-mail:	office@conzelmann-gmbh.de	
Contact person:	main office	Telephone: +49 (0) 8222 413880
E-mail:	office@conzelmann-gmbh.de	

**1.4. Emergency telephone number:** Germany Giftnotruf Göttingen, +49 0551 - 19240, 24hour(s), 365 day(s)/1 year

#### Further Information

No data available

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### GB CLP Regulation

Acute Tox. 4; H302  
STOT RE 2; H373

Full text of hazard statements: see SECTION 16.

#### 2.2. Label elements

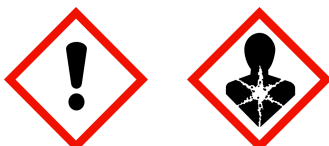
##### GB CLP Regulation

##### Hazard components for labelling

ethanediol, ethylene glycol

Signal word: Warning

##### Pictograms:



##### Hazard statements

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

##### Precautionary statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.

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P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.  
P330 Rinse mouth.  
P501 Dispose of contents/container to an appropriate recycling or disposal facility.

### 2.3. Other hazards

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

Vapours can form explosive mixtures with air.

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Chemical characterization

Ingredient:  
Water,  
ethanediol, ethylene glycol,  
Inhibitor

#### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
107-21-1	ethanediol, ethylene glycol			25 - <=30 %
	203-473-3	603-027-00-1	01-2119456816-28	
	Acute Tox. 4, STOT RE 2; H302 H373			

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

#### Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity	
	Specific Conc. Limits, M-factors and ATE			
107-21-1	203-473-3	ethanediol, ethylene glycol	25 - <=30 %	
	dermal: LD50 = > 3500 mg/kg; oral: ATE = 500 mg/kg			

#### Further Information

No data available

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

Provide fresh air. Remove victim out of the danger area. First aider: Pay attention to self-protection! Wear protective gloves/protective clothing.

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Never give anything by mouth to an unconscious person or a person with cramps.

#### After inhalation

Remove person to fresh air and keep comfortable for breathing.

If unconscious but breathing normally, place in recovery position and seek medical advice.

If breathing is irregular or stopped, administer artificial respiration.

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### After contact with skin

After contact with skin, wash immediately with plenty of water and soap.  
Remove contaminated, saturated clothing immediately. In case of skin irritation, consult a physician.  
Wash contaminated clothing before reuse.

### After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. (10-15 min)  
Remove contact lenses, if present and easy to do. Continue rinsing. In case of eye irritation consult an ophthalmologist.

### After ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Let water be drunk in little sips (dilution effect). (200-300 ml)  
Do NOT induce vomiting. Observe risk of aspiration if vomiting occurs.

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

Following ingestion:  
Causes damage to kidneys if swallowed.

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

First Aid, decontamination, treatment of symptoms.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media

Dry extinguishing powder, alcohol resistant foam, Carbon dioxide (CO<sub>2</sub>), Water spray jet

#### Unsuitable extinguishing media

Full water jet

### 5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Carbon monoxide, Carbon dioxide (CO<sub>2</sub>), Nitrogen oxides (NO<sub>x</sub>)  
Vapours are heavier than air, spread along floors and form explosive mixtures with air.  
Closed containers may burst when pressure and temperature rise

### 5.3. Advice for firefighters

Special protective equipment for firefighters: Full protection suit  
In case of fire: Wear self-contained breathing apparatus.

### Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.  
Dispose of waste according to applicable legislation.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### General advice

See protective measures under point 7 and 8.  
Wear personal protection equipment (refer to section 8).  
Provide adequate ventilation. Do not breathe mist/vapours/spray.  
Avoid contact with eyes and skin.  
Keep away from sources of ignition - No smoking.

#### For non-emergency personnel

Keep away from unprotected people.  
Stop leak if safe to do so. Collect spillage.

#### For emergency responders

Evacuate area.  
To follow: Emergency procedures  
Use water spray jet to minimise or disperse vapours.

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### **6.2. Environmental precautions**

- Do not allow to enter into surface water or drains.
- Do not allow to enter into soil/subsoil.
- Shafts and sewers must be protected from entry of the product.

### **6.3. Methods and material for containment and cleaning up**

#### **For containment**

- Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).
- Collect in closed and suitable containers for disposal. Treat the recovered material as prescribed in the section on waste disposal.

#### **For cleaning up**

- Clean with detergents. Avoid solvent cleaners. Retain contaminated washing water and dispose it.

#### **Other information**

- Provide fresh air.

### **6.4. Reference to other sections**

- See protective measures under point 7 and 8.
- Disposal: see section 13

## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

#### **Advice on safe handling**

- Wear personal protection equipment (refer to section 8).
- Do not breathe gas/vapour/aerosol. Avoid: generation/formation of aerosols
- In case of inadequate ventilation wear respiratory protection.
- Keep container tightly closed.
- Avoid contact with eyes and skin.
- Avoid release to the environment. Clear spills immediately.

#### **Advice on protection against fire and explosion**

- Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.
- Keep away from sources of ignition - No smoking.
- Take precautionary measures against static discharges.

#### **Advice on general occupational hygiene**

- Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.
- Work in well-ventilated zones or use proper respiratory protection.
- Only wear fitting, comfortable and clean protective clothing.
- Wash hands before breaks and after work.
- Take off contaminated clothing and wash it before reuse.
- When using do not eat, drink, smoke, sniff.
- Make available sufficient washing facilities
- Provide eye shower and label its location conspicuously

#### **Further information on handling**

- Observe instructions for use.

### **7.2. Conditions for safe storage, including any incompatibilities**

#### **Requirements for storage rooms and vessels**

- Restrict access to stockrooms.
- Keep container tightly closed in a cool, well-ventilated place.
- Keep/Store only in original container.
- Keep away from heat.
- Unsuitable container/equipment material: Aluminium

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### Hints on joint storage

Keep away from food, drink and animal feedingstuffs.

Keep away from: NaOH; Aluminium; Peroxides; Oxidising agent, strong; Chlorates; sulphuric acid

### Further information on storage conditions

Keep away from: Frost, Heat, Humidity

### 7.3. Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
107-21-1	Ethane-1,2-diol, vapour	20	52		TWA (8 h)	WEL
		40	104		STEL (15 min)	WEL

#### DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
107-21-1	ethanediol, ethylene glycol			
	Worker DNEL, long-term	inhalation	local	35 mg/m <sup>3</sup>
	Worker DNEL, long-term	dermal	systemic	106 mg/kg bw/day
	Consumer DNEL, long-term	inhalation	local	7 mg/m <sup>3</sup>
	Consumer DNEL, long-term	dermal	systemic	53 mg/kg bw/day

#### PNEC values

CAS No	Substance	Value
107-21-1	ethanediol, ethylene glycol	
	Freshwater	10 mg/l
	Freshwater (intermittent releases)	10 mg/l
	Marine water	1 mg/l
	Freshwater sediment	20,9 mg/kg
	Marine sediment	3,7 mg/kg
	Micro-organisms in sewage treatment plants (STP)	199,5 mg/l
	Soil	1,53 mg/kg

#### Additional advice on limit values

ethanediol, ethylene glycol H: skin resorptive

### 8.2. Exposure controls

#### Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

Ground and bond container and receiving equipment.

Carry out filling operations only at stations with exhaust ventilation facilities.

#### Individual protection measures, such as personal protective equipment

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### Eye/face protection

Suitable eye protection: EN 166  
Eye glasses with side protection,  
goggles

### Hand protection

Tested protective gloves must be worn: EN ISO 374  
NBR (Nitrile rubber) NR (natural rubber, Natural latex) Butyl caoutchouc (butyl rubber)  
Thickness of the glove material  $\geq 0,4$  mm NBR (Nitrile rubber)  
Breakthrough times and swelling properties of the material must be taken into consideration.  
For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.  
Wearing time with permanent contact: 240 - 480 min (NBR (Nitrile rubber))  
Wearing time with occasional contact (splashes):  $\geq 480$  min (NBR (Nitrile rubber))  
Observe the wear time limits as specified by the manufacturer. Wear cotton undermitten if possible. Replace when worn.

### Skin protection

Use of protective clothing (liquid-tight)  
Wear anti-static footwear and clothing  
Street clothing should be stored separately from work clothing.

### Respiratory protection

Respiratory protection necessary at: exceeding exposure limit values, vapour-/ aerosol or mist formation  
If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.  
Suitable respiratory protection apparatus: Full-/half-/quarter-face masks (EN 136/140) Type A-P2  
Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

### Thermal hazards

No data available

### Environmental exposure controls

Provide for retaining containers, e.g. floor pan without outflow.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state:	Liquid	
Colour:	colourless	
Odour:	characteristic	
Melting point/freezing point:		No data available
Boiling point or initial boiling point and boiling range:		~ 100 °C
Flammability		
Solid/liquid:		No data available
Lower explosion limits:		3,2* vol. %
Upper explosion limits:		43* vol. %
Flash point:		No data available
Auto-ignition temperature:		>400 °C
Decomposition temperature:		No data available
pH-Value:		9,0-10,0
Water solubility:		completely miscible
Solubility in other solvents		
No information available.		
Partition coefficient n-octanol/water:		No data available

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Vapour pressure: (at 20 °C)	~23 hPa
Density:	1,04 g/cm <sup>3</sup>
Relative vapour density:	No data available

### **9.2. Other information**

#### **Information with regard to physical hazard classes**

##### Explosive properties

not explosive.

Vapours can form explosive mixtures with air.

##### Sustaining combustion:

No data available

##### Self-ignition temperature

Solid:

No data available

Gas:

No data available

##### Oxidizing properties

Not oxidising.

#### **Other safety characteristics**

##### Evaporation rate:

No data available

##### Solvent content:

25-<=30,00 %

##### Solid content:

0%

##### Sublimation point:

No data available

##### Softening point:

No data available

##### Pour point:

No data available

##### Solidifying point:

~ -16 °C

##### Viscosity / dynamic:

No data available

#### **Further Information**

freezing point: ~ -14 °C

cold protection: ~ -15 °C

Conductivity: 20-35 µS/cm

\*ethanediol, ethylene glycol

## **SECTION 10: Stability and reactivity**

### **10.1. Reactivity**

No information available.

### **10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

### **10.3. Possibility of hazardous reactions**

Reacts with: Oxidising agent, strong; Peroxides; Chlorates -->Formation of: Gases/vapours, flammable

Exothermic reaction with: sulphuric acid; NaOH

Vapours can form explosive mixtures with air.

### **10.4. Conditions to avoid**

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

### **10.5. Incompatible materials**

NaOH,

Aluminium

Peroxides

Oxidising agent, strong

Chlorates

sulphuric acid

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### 10.6. Hazardous decomposition products

Reference to other sections: 5

#### Further information

No data available

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in GB CLP Regulation

#### Acute toxicity

Harmful if swallowed.

#### ATEmix calculated

ATE (oral) 1667 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
107-21-1	ethanediol, ethylene glycol				
	oral	ATE mg/kg 500			
	dermal	LD50 mg/kg > 3500	Mouse	Fundamental and Applied Toxicology 27: 1	LD50 derived from developmental toxicity

#### Irritation and corrosivity

Based on available data, the classification criteria are not met.

#### Sensitising effects

Based on available data, the classification criteria are not met.

#### Carcinogenic/mutagenic/toxic effects for reproduction

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 organs through prolonged or repeated exposure. (ethanediol, ethylene glycol)

#### Aspiration hazard

Based on available data, the classification criteria are not met.

### 11.2. Information on other hazards

#### Endocrine disrupting properties

No data available

#### Further information

Calculation method.

## SECTION 12: Ecological information

### 12.1. Toxicity

Based on available data, the classification criteria are not met.



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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
107-21-1	ethanediol, ethylene glycol					
	Acute fish toxicity	LC50 > 72860 mg/l	96 h	Pimephales promelas	Environ. Toxicology and Chemistry, Vol.	EPA 600/4-90/027. U.S. Environmental Pro
	Acute algae toxicity	ErC50 6500 - 13000 mg/l	96 h	Pseudokirchneriella subcapitata	Study report (1982)	other: EPA 600/9-78-018, 1978
	Acute crustacea toxicity	EC50 > 100 mg/l	48 h	Daphnia magna	Study report (1998)	OECD Guideline 202
	Fish toxicity	NOEC 15380 mg/l	7 d	Pimephales promelas	Environ. Toxicology and Chemistry, Vol.	other: EPA 600/4-89/001. U.S. Environmen
	Algae toxicity	NOEC > 100 mg/l	8 d	Scenedesmus quadricauda	REACH Registration Dossier	OECD Guideline 201
	Crustacea toxicity	NOEC 7500 - 15000 mg/l	21 d	Daphnia magna	REACH Registration Dossier	other: ASTM

### 12.2. Persistence and degradability

No further relevant information available.

CAS No	Chemical name				
	Method	Value	d	Source	
	Evaluation				
107-21-1	ethanediol, ethylene glycol				
	OECD 301A	90-100%	10		

### 12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
107-21-1	ethanediol, ethylene glycol	-1,36

### 12.4. Mobility in soil

No information available.

### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

### 12.7. Other adverse effects

No information available.

### Further information

Discharge into the environment must be avoided. slightly hazardous to water

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

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### Disposal recommendations

Dispose of waste according to applicable legislation. The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Hazardous waste according to Directive 2008/98/EC (waste framework directive).

### List of Wastes Code - residues/unused products

140603 WASTE ORGANIC SOLVENTS, REFRIGERANTS AND PROPELLANTS (EXCEPT 07 AND 08); waste organic solvents, refrigerants and foam/aerosol propellants; other solvents and solvent mixtures; hazardous waste

### List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

### Contaminated packaging

Completely emptied packages can be recycled.

Dispose of waste according to applicable legislation.

## SECTION 14: Transport information

### Land transport (ADR/RID)

<u>14.1. UN number or ID number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

### Inland waterways transport (ADN)

<u>14.1. UN number or ID number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

### Marine transport (IMDG)

<u>14.1. UN number or ID number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

### Air transport (ICAO-TI/IATA-DGR)

<u>14.1. UN number or ID number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

### 14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

### 14.7. Maritime transport in bulk according to IMO instruments

No dangerous good in sense of this transport regulation.

## SECTION 15: Regulatory information

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

#### EU regulatory information

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Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

Information according to Directive 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

### Additional information

Classification according to Regulation (EC) No 1272/2008 [CLP]  
Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)  
COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work  
Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (recast) Text with EEA relevance  
DIRECTIVE (EU) 2018/851 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 30 May 2018 amending Directive 2008/98/EC on waste  
DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives

### National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 1 - slightly hazardous to water

### Additional information

Germany  
Gesetz über die Durchführung von Maßnahmen des Arbeitsschutzes zur Verbesserung der Sicherheit und des Gesundheitsschutzes der Beschäftigten bei der Arbeit (Arbeitsschutzgesetz – ArbSchG)  
Verordnung über Arbeitsstätten (Arbeitsstättenverordnung – ArbStättV) mit zugehörigen Technischen Regeln für Arbeitsstätten (ASR)  
Chemical legislation  
Hazardous Substances Ordinance (GefStoffV)  
Gesetz zur Ordnung des Wasserhaushalts (Wasserhaushaltsgesetz – WHG)  
Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV)

DGUV Vorschriften, DGUV Regeln, Merkblätter und sonstige Schriften der UVT:  
Merkblatt A 010: Betriebsanweisungen für Tätigkeiten mit Gefahrstoffen (DGUV Information 213-051)  
Merkblatt A 016: Gefährdungsbeurteilung – Sieben Schritte zum Ziel  
Merkblatt A 017: Gefährdungsbeurteilung – Gefährdungskatalog  
Merkblatt A 023: Hand- und Hautschutz  
Merkblatt A 026: Unterweisung – Gefährdungsorientierte Handlungshilfe  
Merkblatt M 050: Tätigkeiten mit Gefahrstoffen (DGUV Information 213-079)  
Merkblatt M 053: Arbeitsschutzmaßnahmen bei Tätigkeiten mit Gefahrstoffen (DGUV Information 213-080)

TRGS 201, TRGS 220, TRGS 400 ff., TRGS 500, TRGS 509, TRGS 510, TRGS 555, TRGS 600, TRGS 800, TRGS 900

The product does not contain any hazardous ingredients according to EU Directive 2011/65/EU.

### 15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:  
ethanediol, ethylene glycol

## SECTION 16: Other information

### Changes

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This data sheet contains changes from the previous version in section(s): 1,15.

### Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route  
(European Agreement concerning the International Carriage of Dangerous Goods by Road)  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer  
(Regulations Concerning the International Transport of Dangerous Goods by Rail)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)  
ICAO: International Civil Aviation Organization  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)  
CLP: Classification, labelling and Packaging  
REACH: Registration, Evaluation and Authorization of Chemicals  
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals  
UN: United Nations  
CAS: Chemical Abstracts Service  
DNEL: Derived No Effect Level  
DMEL: Derived Minimal Effect Level  
PNEC: Predicted No Effect Concentration  
ATE: Acute toxicity estimate  
LC50: Lethal concentration, 50%  
LD50: Lethal dose, 50%  
LL50: Lethal loading, 50%  
EL50: Effect loading, 50%  
EC50: Effective Concentration 50%  
ErC50: Effective Concentration 50%, growth rate  
NOEC: No Observed Effect Concentration  
BCF: Bio-concentration factor  
PBT: persistent, bioaccumulative, toxic  
vPvB: very persistent, very bioaccumulative  
MARPOL: International Convention for the Prevention of Marine Pollution from Ships  
IBC: Intermediate Bulk Container  
SVHC: Substance of Very High Concern

### Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Acute Tox. 4; H302	Calculation method
STOT RE 2; H373	Calculation method

### Relevant H and EUH statements (number and full text)

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

### Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*