

SECTION 3: Composition/information on ingredients**3.1 Fabrics**

n.a.

3.2 Mixtures

Diethylene glycol	
Registration No. (REACH)	01-2119457857-21-XXXX
Index	603-140-00-6
EINECS, ELINCS, NLP, REACH-IT List-No.	203-872-2
CAS	111-46-6
% range	1-5
Classification according to Regulation (EC) No 1272/2008 (CLP), M-factors	Acute Tox. 4, H302

Text of H-phrases and classification abbreviations (GHS/CLP) see section 16.

The substances mentioned in this section are named with their actual, applicable classification!

This means that for substances listed in Annex VI Table 3.1 of Regulation (EC) No. 1272/2008 (CLP Regulation), all possible comments mentioned there were taken into account for the classification mentioned here.

SECTION 4: First aid measures**4.1 Description of first aid measures**

First aiders should pay attention to self-protection!

Never give anything by mouth to an unconscious person!

Inhale

Remove person from danger zone.

Supply person with fresh air and consult a doctor depending on symptoms.

Skin contact

Wash thoroughly with plenty of water, remove contaminated, soaked clothing immediately, consult a doctor in case of skin irritation (reddening etc.).

Eye contact

Remove contact lenses.

Rinse thoroughly with plenty of water for several minutes, consult a doctor if necessary.

Ingestion

Rinse mouth thoroughly with water.

Consult a doctor immediately, carry data sheet.

Do not induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

If applicable, delayed symptoms and effects can be found in section 11. or in the intake routes under section 4.1.

In certain cases, the symptoms of poisoning may only appear after a longer period of time/after several hours. This may occur:

Eye irritation In case

of prolonged contact:

Irritation of the skin.

4.3 Information on immediate medical assistance or specialised treatment

Symptomatic treatment.

SECTION 7: Handling and storage

In addition to the information contained in this section, relevant information can also be found in sections 8 and 6.1.

7.1 Protective measures for safe handling

7.1.1 General recommendations

Ensure good room ventilation.

Avoid eye contact.

Avoid prolonged or intensive skin contact.

Eating, drinking, smoking and storing food in the work area is prohibited.

Observe the information on the label and the instructions for use.

7.1.2 Information on general hygiene measures in the workplace

The general hygiene measures for handling chemicals must be applied.

Wash hands before breaks and at the end of work.

Keep away from food, drink and animal feed.

Remove contaminated clothing and protective equipment before entering areas where food is served.

7.2 Conditions for safe storage, taking into account incompatibilities

Do not store the product in passageways and stairways.

Only store the product in its original packaging and closed.

Storage class see section 15.

Store in a cool place.

Store in a dry place.

7.3 Specific end uses

There is currently no information on this.

SECTION 8: Exposure controls/personal protective equipment

8.1 Parameters to be monitored

Chemical name	Diethylene glycol
AGW: 10 ppm (44 mg/m ³)	Spb.-Uf.: 4(II)
Monitoring methods:	- Draeger - Alcohol 100/a (CH 29 701)
BGW:---	Other data: DFG, Y, 11

Diethylene glycol						
Field of application	Exposure path / Environmental compartment	Impact on the Health	Descriptor	Value	Unit	Remark
	Environment - Freshwater		PNEC	10	mg/m ³	
	Environment - Seawater		PNEC	1	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	10	mg/l	
	Environment - sediment, fresh water		PNEC	20,9	mg/kg dw	
	Environment - Soil		PNEC	1,53	mg/kg dw	
	Environment - Sediment, Seawater		PNEC	2,09	mg/kg	
	Environment - Waste water treatment plant		PNEC	199,5	mg/l	
Consumers	Human - dermal	Long-term, systemic effects	DNEL	21	mg/kg bw/day	

Consumers	Human - Inhalation	Long-term, systemic effects	DNEL	12	mg/m3	
Consumers	Human - Inhalation	Long-term, local effects	DNEL	12	mg/m3	
Workers / employees	Human - dermal	Long-term, systemic effects	DNEL	43	mg/kg bw/day	
Workers / employees	Human - Inhalation	Long-term, systemic effects	DNEL	44	mg/m3	
Workers / employees	Human - Inhalation	Long-term, local effects	DNEL	60	mg/m3	

AGW = Occupational exposure limit value. E = inhalable fraction, A = alveolar fraction.

(8) = Inhalable fraction (Directive 2017/164/EU, Directive 2004/37/EC). (9) = Respirable fraction (Directive 2017/164/EU, Directive 2004/37/EC). (11) = Inhalable fraction (Directive 2004/37/EC). (12) = Inhalable fraction. Respirable fraction in Member States implementing a biomonitoring system with a maximum biological limit of 0.002 mg Cd/g creatinine in urine on the date of entry into force of this Directive (Directive 2004/37/EC). | Spb.-Üf. = peak limit - exceedance factor (1 to 8) and category (I, II) for short-term values. "=" = instantaneous value. Category (I) = Substances for which the local effect determines the limit value or respiratory sensitising substances, (II) = Respiratively active substances.

(8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). (10) = Short-term exposure limit value for a reference period of one minute (2017/164/EU). | BGW = biological limit value. Sampling time: a) no restriction, b) end of exposure or end of shift, c) for long-term exposure: at the end of the shift after several previous shifts, d) before the following shift, e) after the end of exposure: hours, f) after at least 3 months of exposure, g) immediately after exposure, h) before the last shift of a working week. | Other information: ARW = workplace guideline value. H = skin-resorptive. X = carcinogenic substance of cat. 1A or 1B or carcinogenic activity or process according to § 2 paragraph 3 no. 4 of the Hazardous Substances Ordinance - § 10 GefStoffV must also be observed. Y = A risk of fruit damage need not be feared if the AGW and BGW are observed. Z = A risk of fruit damage cannot be excluded even if the AGW and BGW are observed (see No. 2.7 TRGS 900). Sa = Respiratory sensitiser. Sh = Skin sensitising. Sah = Respiratory and skin sensitising. DFG = German Research Foundation (MAK Commission). AGS = Committee for Hazardous Substances. (10) = The occupational exposure limit refers to the element content of the corresponding metal. (11) = Sum of vapour and aerosols.

= The limit value for this substance was cancelled by the TRGS 900 (Germany) of January 2006 with the aim of revision. TRGS 905 - List of carcinogenic, germ cell mutagenic or reprotoxic substances (substances not listed in Annex VI Part 3 of the CLP Regulation or classified differently by the AGS) with K = Carcinogenic, M = Germ cell mutagenic, RF = Reproductive toxicant (may impair fertility), RE = Reproductive toxicant - Developmental toxicant (may cause harm to the unborn child), 1A/1B/2 = Categories according to Annex I of the CLP Regulation.

(13) = The substance may cause skin and respiratory sensitisation (Directive 2004/37/EC), (14) = The substance may cause skin sensitisation (Directive 2004/37/EC).

8.2 Exposure controls and monitoring

8.2.1 Suitable technical control equipment

Ensure good ventilation. This can be achieved by local extraction or general exhaust air.

If this is not sufficient to keep the concentration below the occupational exposure limit values (OEL), suitable respiratory protection must be worn.

Only applies if exposure limit values are listed here.

Suitable assessment methods for checking the effectiveness of the protective measures taken include metrological and non-measurable determination methods.

These are described by e.g. EN 14042, TRGS 402 (Germany).

EN 14042 "Workplace atmospheres. Guideline for the application and use of methods and equipment for the detection of chemical and biological agents".

TRGS 402 (Germany) "Determination and assessment of hazards during activities involving hazardous substances - Inhalative exposure".

8.2.2 Individual protective measures, for example personal protective equipment

The general hygiene measures for handling chemicals must be applied. Wash hands before breaks and at the end of work.

Keep away from food, drink and animal feed.

Remove contaminated clothing and protective equipment before entering areas where food is served.

Eye/face protection:

In case of risk of eye contact.

Safety goggles with side shields (EN 166).

Skin protection - Hand protection:

Normally not required.

Hand protection cream recommended.

For prolonged contact:

Rubber gloves (EN ISO 374).

Protective gloves made of plastic (EN ISO 374).

Minimum layer thickness in mm:

0,5

Permeation time (breakthrough time) in minutes:

480

Skin protection - Other protective measures:

Protective work clothing (e.g. safety shoes EN ISO 20345, long-sleeved work clothing).

Respiratory protection:

Normally not required.

Thermal hazards:

Not applicable

Additional information on hand protection - No tests have been carried out.

The selection of mixtures was made to the best of our knowledge and based on the information provided by the ingredients.

The selection of fabrics was derived from the glove manufacturers' specifications.

The final selection of the glove material must take into account the breakthrough times, permeation rates and degradation.

The selection of a suitable glove depends not only on the material, but also on other quality features and varies from manufacturer to manufacturer.

For mixtures, the resistance of glove materials cannot be calculated in advance and must therefore be checked before use.

The exact breakthrough time of the glove material must be obtained from the protective glove manufacturer and adhered to.

8.2.3 Limitation and monitoring of environmental exposure

There is currently no information on this.

SECTION 9: Physical and chemical properties**9.1 Information on the basic physical and chemical properties**

Physical state:	Paste, liquid
Colour:	Depending on specification
Odour:	Mild
Melting point/freezing point:	~50 °C
Boiling point or initial boiling point and boiling range:	n.a.
Flammability:	Flammable
Lower explosion limit:	n.a.
Upper explosion limit:	n.a.
Flash point:	~240 °C (DIN 51376 (Cleveland, open cup))
Ignition temperature:	~400 °C (DIN 51794)
Decomposition temperature:	There is no information available on this parameter.
pH value:	~8 (20°C, emulsion)
Kinematic viscosity:	There is no information available on this parameter.
Solubility:	Miscible
Partition coefficient n-octanol/water (log value):	Does not apply to mixtures.
Vapour pressure:	There is no information available on this parameter.
Density and/or relative density:	1.06 g/cm ³ (20°C)
Relative vapour density:	There is no information available on this parameter.
Particle properties:	Does not apply to liquids.

9.2 Other information

Explosive substances/mixtures and articles containing explosives: Product is not explosive.

Oxidising liquids: No

SECTION 10: Stability and reactivity

10.1 Reactivity

Not to be expected

10.2 Chemical stability

Stable when stored and handled properly.

10.3 Possibility of hazardous reactions

No dangerous reactions known.

10.4 Conditions to avoid

None known

10.5 Incompatible materials

None known

10.6 Hazardous decomposition products

No decomposition when used as intended.

SECTION 11: Toxicological information

11.1. Information on hazard classes according to Regulation (EC) No 1272/2008

For possible further information on health effects see section 2.1 (Classification).

Tyre mounting paste black

Toxicity / Effect	End point	Value	Unit	Organism	Test method	Remark
Acute toxicity, oral:						n.d.v.
Acute toxicity, dermal:						n.d.v.
Acute toxicity, inhalation:						n.d.v.
Corrosive/irritant effect on the skin:						n.d.v.
Serious eye damage/irritation:						n.d.v.
Sensitisation of the respiratory tract/skin:						n.d.v.
Germ cell mutagenicity:						n.d.v.
Carcinogenicity:						n.d.v.
Reproductive toxicity:						n.d.v.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.v.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.v.
Danger of aspiration:						n.d.v.
Symptoms:						n.d.v.

Diethylene glycol

Toxicity / Effect	End point	Value	Unit	Organism	Test method	Remark
Acute toxicity, oral:	LD50	12565	mg/kg	Rat		The EU categorisation does not match this.
Acute toxicity, dermal:	LD50	11890	mg/kg	Rabbit		
Acute toxicity, inhalation:	LC0	4,4-4,6	mg/l/4h	Rat		The EU categorisation does not match this.

Corrosive/irritant effect on the skin:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Non-irritant
Serious eye damage/irritation:						Slightly irritating
Sensitisation of the respiratory tract/skin:				Guinea pig	Regulation (EC) 440/2008 B.6 (SKIN SENSITISATION)	Not sensitising
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative
Reproductive toxicity (developmental damage):	NOAEL	1000	mg/kg bw/d	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	
Reproductive toxicity (effect on fertility):	NOAEL	3060	mg/kg bw/d	Mouse	OECD 416 (Two-generation Reproduction Toxicity Study)	
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAEL	936	mg/kg bw/d	Rat	OECD 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)	
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAEL	2200	mg/kg bw/d	Dog	OECD 410 (Repeated Dose Dermal Toxicity - 90-Day)	Conclusion by analogy
Symptoms:						Acidosis, breathing difficulties, unconsciousness, diarrhoea, cough, cramps, fatigue, mucous membrane irritation, dizziness, nausea and vomiting, tremors

11.2. Information on other hazards

Tyre mounting paste black						
Toxicity / Effect	End point	Value	Unit	Organism	Test method	Remark
Endocrine disrupting properties:						Does not apply to mixtures.
Other information:						No other relevant information on adverse health effects available.

SECTION 13: Disposal instructions**13.1 Waste treatment methods****For the substance / mixture / residual quantities**

Waste code no. EC:

The mentioned waste codes are recommendations based on the expected use of this product. Due to the specific use and disposal conditions of the user, other waste codes may also be assigned under certain circumstances. (2014/955/EU)

07 06 99 wastes not otherwise specified.

Recommendation:

Disposal via waste water is not recommended.

Observe local official regulations.

For example, suitable incineration plant.

For example, deposit in a suitable landfill.

For contaminated packaging material

Observe local official regulations.

Recommendation:

Empty the container completely.

Non-contaminated packaging can be reused.

Packaging that cannot be cleaned must be disposed of in the same way as the substance.

SECTION 14: Transport information**General information****Road / rail transport (GGVSEB/ADR/RID)**

14.1. UN number or ID number:	Not applicable
14.2. UN proper shipping name:	Not applicable
14.3. Transport hazard classes:	Not applicable
14.4. Packaging group:	Not applicable
14.5. Environmental hazards:	Not applicable
Tunnel restriction code:	Not applicable
Classification code:	Not applicable
LQ:	Not applicable
Transport category:	Not applicable

Transport by sea-going vessels (GGVSee/IMDG Code)

14.1. UN number or ID number:	Not applicable
14.2. UN proper shipping name:	Not applicable
14.3. Transport hazard classes:	Not applicable
14.4. Packaging group:	Not applicable
14.5. Environmental hazards:	Not applicable
Marine pollutant:	Not applicable
EmS:	Not applicable

Carriage by aircraft (IATA)

14.1. UN number or ID number:	Not applicable
14.2. UN proper shipping name:	Not applicable
14.3. Transport hazard classes:	Not applicable
14.4. Packaging group:	Not applicable
14.5. Environmental hazards:	Not applicable

14.6. Special precautions for the user

Unless otherwise specified, the general measures for safe transport must be observed.

14.7. Bulk transport by sea in accordance with IMO instruments

No dangerous goods according to the above regulations.

SECTION 15: Legislation**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Observe restrictions:

The general hygiene measures for handling chemicals must be applied.

Directive 2010/75/EU (VOC): 0 %

Water hazard class (Germany): 1

Technical Instructions on Air Quality Control - TA Luft:

Chapter 5.2.1 - Total dust (inorganic and organic substances, general, not assigned to any class): 5,00 -< 10,00 %

Chapter 5.2.5 - Organic substances (non-dusty organic substances, general, not assigned to a class): 3,00 -< 5,00 %

Observe the Youth Labour Protection Act (JArbSchG) (Germany).

Occupational exposure limits/biological limit values see section 8.

Storage class according to TRGS 510:

10-13 the assignment of the storage class is optional

National guidelines/regulations on safety and health protection when using work equipment must be applied.

15.2 Chemical safety assessment

A chemical safety assessment is not required for mixtures.

SECTION 16: Other information

Revised sections: 8, 10, 15, 16

Classification and methods used to derive the classification of the mixture according to Regulation (EC) 1272/2008 (CLP):

Not applicable

The following sentences represent the written out H-phrases, hazard class code (GHS/CLP) of the ingredients (named in section 2 and 3).

H302 Harmful if swallowed. Acute Tox. -

Acute toxicity - oral

Important literature and data sources:

Regulation (EC) No. 1907/2006 (REACH) and Regulation (EC) No. 1272/2008 (CLP) as amended. Guidelines for the preparation of safety data sheets in the valid version (ECHA).

Guidance on labelling and packaging according to Regulation (EC) No. 1272/2008 (CLP) as amended (ECHA). Safety data sheets of the ingredients.

ECHA-homepage - Information on chemicals.

GESTIS substance database (Germany).

Federal Environment Agency "Rigoletto" information page on substances hazardous to water (Germany).

EU occupational exposure limit values Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164, (EU) 2019/1831 as amended.

National occupational exposure limit value lists of the respective countries as amended.

Regulations for the transport of dangerous goods by road, rail, sea and air (ADR, RID, IMDG, IATA) as amended.

Any abbreviations and acronyms used in this document:

ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)
Alcohol resistant general	Alcohol resistant General
AOX	Adsorbable organic halogen compounds
Art. no.	Item number
ASTM ASTM	International (American Society for Testing and Materials)
ATE	Acute Toxicity Estimate (= estimated value of acute toxicity)
BAFU	Federal Office for the Environment (Switzerland)
BAM	Federal Institute for Materials Research and Testing

Min., min.	Minute(s) or at least or minimum
n.a.	not applicable
n.g.	not tested
n.v.	not available
NIOSH	National Institute for Occupational Safety and Health (USA)
NLP	No-longer-polymer (= no-more-polymer)
NOEC, NOEL	No Observed Effect Concentration/Level (= concentration/dose without observed effect)
OECD	Organisation for Economic Co-operation and Development (= Organisation for Economic Co-operation and Development)
org.	organic
OSHA	Occupational Safety and Health Administration (USA)
PBT	persistent, bioaccumulative and toxic (= persistent, bioaccumulative and toxic)
PE	Polyethylene
PNEC	Predicted No Effect Concentration (= estimated no effect concentration)
Pt.	Point
PVC	Polyvinyl chloride
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)
REACH-IT List-No.	9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.
resp.	respectively
RID	Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation on the International Carriage of Dangerous Goods by Rail)
SVHC	Substances of Very High Concern (= substances of very high concern)
Tel.	Telephone
TOC	Total organic carbon (= total organic carbon)
TRGS	Technical rules for hazardous substances
UEVK	Federal Department of the Environment, Transport, Energy and Communications (Switzerland)
UN RTDG	United Nations Recommendations on the Transport of Dangerous Goods (the United Nations recommendations for the transport of dangerous goods)
UV	Ultraviolet
VbF	Ordinance on Flammable Liquids (Austrian Ordinance) VeVA Ordinance on the Movement of Waste (Switzerland)
VOC	Volatile organic compounds (= volatile organic compounds)
vPvB	very persistent and very bioaccumulative (= very persistent and very bioaccumulative)
WBF	Federal Department of Economic Affairs, Education and Research (Switzerland)
WGK	slightly hazardous to water
WGK1	clearly hazardous to water
WGK2	Highly hazardous to water
WGK3	wet weight (= wet mass)
wwt	

The information provided here is intended to describe the product with regard to the necessary safety precautions; it is not intended to guarantee specific properties and is based on our current state of knowledge. Liability excluded.
Issued by:

KS Tools Werkzeuge und Maschinen GmbH,
Seligenstädter Grund 10-12, 63150 Heusenstamm,
Phone: +49 (6104) 49 74 0, Fax: +49 (6104) 49 74 11
E-mail: aftersales@kstoools.com