

### Klemm I und II (Stammlösung)

Revision: 27.01.2026

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

### 1.1. Product identifier

Klemm I und II (Stammlösung)

UFI: DKHE-8URA-A52N-J44K

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

#### **Use of the substance/mixture**

Laboratory chemical

#### **Uses advised against**

Any non-intended use.

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

Company name: Schmitz-Metallographie GmbH

Street: Kaiserstraße 100

Place: D-52134 Herzogenrath

Telephone: 02407 / 568296-0

Telefax: 02407 / 568296-9

E-mail: info@schmitz-metallographie.de

Contact person: Herr Füllmann

E-mail: info@schmitz-metallographie.de

Internet: www.schmitz-metallographie.de

### 1.4. Emergency telephone number:

#### **Further Information**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### **Regulation (EC) No 1272/2008**

This mixture is not classified as hazardous in accordance with Regulation (EC) No 1272/2008.

### 2.2. Label elements

#### **Additional advice on labelling**

Labelling according to Regulation (EC) No. 1272/2008 [CLP]: none

### 2.3. Other hazards

The substances in the mixture (> 0.1%) do not meet the PBT/vPvB criteria according to REACH, annex XIII.

This product does not contain a substance (> 0,1%) that has endocrine disrupting properties with respect to humans as no components meets the criteria. This product does not contain a substance (> 0,1 %) that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

No risks worthy of mention. Please observe the information on the safety data sheet at all times.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### **Chemical characterization**

The product does not contain dangerous substances according to REGULATION (EU) No. 2020/878, Annex II, Part A , 3.1/3.2. that must be mentioned in Chapter 3.

#### **Relevant ingredients**

none (according to Regulation (EC) No 1907/2006 (REACH))

#### **Further Information**

Product does not contain listed SVHC substances > 0.1 % according to Regulation (EC) No. 1907/2006 Article

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59 (REACH).

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### **General information**

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

#### **After inhalation**

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of respiratory tract irritation, consult a physician.

#### **After contact with skin**

Gently wash with plenty of soap and water. In case of skin irritation, seek medical treatment.

#### **After contact with eyes**

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of troubles or persistent symptoms, consult an ophthalmologist.

#### **After ingestion**

Rinse mouth thoroughly with water. Let water be drunk in little sips (dilution effect). Do NOT induce vomiting. In all cases of doubt, or when symptoms persist, seek medical advice.

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

No known symptoms to date.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### **Suitable extinguishing media**

The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

#### **Unsuitable extinguishing media**

High power water jet.

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

Can be released in case of fire: Sulfur oxides.

### 5.3. Advice for firefighters

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.

Co-ordinate fire-fighting measures to the fire surroundings.

## SECTION 6: Accidental release measures

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

#### **General advice**

Safe handling: see section 7

#### **For non-emergency personnel**

Wear personal protection equipment (refer to section 8).

#### **For emergency responders**

No special measures are necessary.

### 6.2. Environmental precautions

Discharge into the environment must be avoided.

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

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#### For containment

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Treat the recovered material as prescribed in the section on waste disposal.

#### For cleaning up

Clean contaminated objects and areas thoroughly observing environmental regulations.

#### 6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advice on safe handling

Wear suitable protective clothing. See section 8.

The usual precautions for handling chemicals should be considered.

Avoid contact with skin, eyes and clothes.

#### Advice on protection against fire and explosion

Usual measures for fire prevention.

#### Advice on general occupational hygiene

Always close containers tightly after the removal of product. When using do not eat, drink or smoke. Wash hands before breaks and after work.

#### Further information on handling

General protection and hygiene measures: See section 8.

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

#### Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.

#### Hints on joint storage

Do not store together with: Explosives. Oxidizing solids. Oxidizing liquids. Radioactive substances. Infectious substances. Food and animal feedingstuff.

#### Further information on storage conditions

storage temperature: 15-25 °C

Protect against: heat.

### 7.3. Specific end use(s)

See section 1.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Additional advice on limit values

To date, no national critical limit values exist.

### 8.2. Exposure controls

#### Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

Provide adequate ventilation.

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

##### Eye/face protection

Wear safety glasses; chemical goggles (if splashing is possible). EN ISO 16321-1:2022

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#### Hand protection

In case of prolonged or frequently repeated skin contact:

Wear suitable gloves.

Suitable material:

FKM (fluororubber). - Thickness of glove material: 0,4 mm

Breakthrough time >= 8 h

Butyl rubber. - Thickness of glove material: 0,5 mm

Breakthrough time >= 8 h

CR (polychloroprenes, Chloroprene rubber). - Thickness of glove material: 0,5 mm

Breakthrough time >= 8 h

NBR (Nitrile rubber). - Thickness of glove material: 0,35 mm

Breakthrough time >= 8 h

PVC (Polyvinyl chloride). - Thickness of glove material: 0,5 mm

Breakthrough time >= 8 h

The selected protective gloves have to satisfy the specifications of EU Directive EC/2016/425 and the standard EN 374 derived from it.

Before using check leak tightness / impermeability. In the case of wanting to use the gloves again, clean them before taking off and air them well.

#### Skin protection

Suitable protective clothing: Lab apron.

#### Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

#### Thermal hazards

No special precautionary measures are necessary.

#### Environmental exposure controls

No special precautionary measures are necessary.

## SECTION 9: Physical and chemical properties

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

Physical state:	liquid
Colour:	colourless
Odour:	characteristic
Odour threshold:	not determined
Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	~100 °C
Flammability:	not determined
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Flash point:	>100 °C
Auto-ignition temperature:	not determined
Decomposition temperature:	not relevant
pH-Value:	8,8
Viscosity / kinematic:	not determined
Water solubility:	completely miscible
Solubility in other solvents	not determined
Dissolution rate:	not relevant
Partition coefficient n-octanol/water:	not relevant
Dispersion stability:	not relevant
Vapour pressure:	~ 23 hPa
(at 20 °C)	

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Density:	not determined
Bulk density:	not relevant
Relative vapour density:	not determined
Particle characteristics:	not relevant

#### **9.2. Other information**

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

Explosive properties	
not explosive.	
Sustained combustibility:	No sustained combustibility
Self-ignition temperature	
Solid:	not relevant
Gas:	not relevant
Oxidizing properties	
none	

##### **Other safety characteristics**

Evaporation rate:	not determined
Solvent separation test:	not determined
Solvent content:	not determined
Solid content:	not determined
Sublimation point:	not relevant
Softening point:	not relevant
Pour point:	not relevant
Viscosity / dynamic:	not determined
Flow time:	not determined

#### **Further Information**

No information available.

## SECTION 10: Stability and reactivity

#### **10.1. Reactivity**

No information available.

#### **10.2. Chemical stability**

Stable under normal storage and handling conditions.

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

Reacts with: Oxidizing agents, strong. acid.

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

Do not mix with: acid.

#### **10.5. Incompatible materials**

Materials to avoid: Oxidizing agents, strong. acid.

#### **10.6. Hazardous decomposition products**

Can be released in case of fire: Sulfur oxides.

## SECTION 11: Toxicological information

#### **11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

##### **Toxicokinetics, metabolism and distribution**

No data available.

##### **Acute toxicity**

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

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#### ATEmix calculated

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

#### Irritation and corrosivity

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation: 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

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

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

#### Aspiration hazard

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

#### Specific effects in experiment on an animal

No data available.

### 11.2. Information on other hazards

#### Endocrine disrupting properties

This product does not contain a substance (> 0,1%) that has endocrine disrupting properties with respect to humans as no components meets the criteria.

#### Other information

No data available.

## SECTION 12: Ecological information

### 12.1. Toxicity

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

No data available.

### 12.2. Persistence and degradability

No data available.

### 12.3. Bioaccumulative potential

No data available..

### 12.4. Mobility in soil

No data available.

### 12.5. Results of PBT and vPvB assessment

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

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

### 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.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

### 12.7. Other adverse effects

No data available.

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#### Further information

Do not allow to enter into surface water or drains.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Disposal recommendations

Observe in addition any national regulations! Consult the local waste disposal expert about waste disposal.

Non-contaminated packages may be recycled.

According to (EWC) European Waste Catalogue, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

Control report for waste code/ waste marking according to (EWC) European Waste Catalogue:

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

160304 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; inorganic wastes other than those mentioned in 16 03 03

#### List of Wastes Code - used product

160304 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; inorganic wastes other than those mentioned in 16 03 03

#### List of Wastes Code - contaminated packaging

150106 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); mixed packaging

#### Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

## SECTION 14: Transport information

#### Land transport (ADR/RID)

##### 14.1. UN number or ID number:

No dangerous good in sense of these transport regulations.

##### 14.2. UN proper shipping name:

No dangerous good in sense of these transport regulations.

##### 14.3. Transport hazard class(es):

No dangerous good in sense of these transport regulations.

##### 14.4. Packing group:

No dangerous good in sense of these transport regulations.

#### Inland waterways transport (ADN)

##### 14.1. UN number or ID number:

No dangerous good in sense of these transport regulations.

##### 14.2. UN proper shipping name:

No dangerous good in sense of these transport regulations.

##### 14.3. Transport hazard class(es):

No dangerous good in sense of these transport regulations.

##### 14.4. Packing group:

No dangerous good in sense of these transport regulations.

#### Marine transport (IMDG)

##### 14.1. UN number or ID number:

No dangerous good in sense of these transport regulations.

##### 14.2. UN proper shipping name:

No dangerous good in sense of these transport regulations.

##### 14.3. Transport hazard class(es):

No dangerous good in sense of these transport regulations.

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

##### 14.1. UN number or ID number:

No dangerous good in sense of these transport regulations.

##### 14.2. UN proper shipping name:

No dangerous good in sense of these transport regulations.

##### 14.3. Transport hazard class(es):

No dangerous good in sense of these transport regulations.

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS:

No

#### 14.6. Special precautions for user

refer to section 6 - 8

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

not relevant

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## SECTION 15: Regulatory information

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

#### EU regulatory information

Directive 2010/75/EU on industrial emissions:	not determined
Directive 2004/42/EC on VOC in paints and varnishes:	0%; VOC 2004/42/EC: 0 g/L
Information according to Directive 2012/18/EU (SEVESO III):	Not subject to 2012/18/EU (SEVESO III)

#### Additional information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)  
This mixture is classified as not hazardous according to Regulation (EC) 1272/2008 [CLP].  
REACH 1907/2006 Appendix XVII, No (mixture): not relevant

#### National regulatory information

Water hazard class (D):	1 - slightly hazardous to water
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### 15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

#### Changes

Rev. 1,00; Initial release 28.03.2022

Rev. 2,00; Changes in section: 16; 27.01.2026

#### 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)

AGW: Arbeitsplatzgrenzwert

CAS: Chemical Abstracts Service

CLP: Classification, Labelling and Packaging of substances and mixtures

DNEL: Derived No Effect Level

d: day(s)

EINECS: European INventory of Existing Commercial chemical Substances

ELINCS: European List of Notified Chemical Substances

ECHA: European Chemicals Agency

EWC: European Waste Catalogue

IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER

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)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)

h: hour

LOAEL: Lowest observed adverse effect level

LOAEC: Lowest observed adverse effect concentration

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

NOAEL: No observed adverse effect level

NOAEC: No observed adverse effect concentration

NLP: No-Longer Polymers

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N/A: not applicable

OECD: Organisation for Economic Co-operation and Development

PNEC: predicted no effect concentration

PBT: Persistent bioaccumulative toxic

RID: Reglement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail )

REACH: Registration, Evaluation, Authorisation of Chemicals

SVHC: substance of very high concern

TRGS: Technische Regeln für Gefahrstoffe

UN: United Nations

VOC: Volatile Organic Compounds

WGK: Water Hazard Class (Germany)

#### Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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