

## SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006

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

#### 1.1. Product identifier

Trade name: VeroMetal S2K Hardener

Other names: -

MSDS name: EN\_VeroMetal\_MSDS\_S2K Hardener

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

1.2.1. Application of the substance / the mixture

Additional component

1.2.2. Applications advised against

No further relevant information available.

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

**VeroMetal GmbH**

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D-52531 Übach-Palenberg

HRB 14478 AG Aachen

Ust-ID: DE 257475368

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info@verometal.de

#### 1.4. Emergency telephone number

Monday – Friday, 9:00 am - 4:00 pm

+49 (0)2451 971 497

### SECTION 2: Hazards identification

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

Classification according to Regulation (EC) No 1272/2008

Eye irrit. (Category 2)

Skin sens. (Category 1)

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Xi; Irritating

R36: Irritating to eyes.

R43: May cause sensitization by skin contact.

Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

## 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

Signal word: Warning

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

Precautionary statements:

P280: Wear protective gloves/eye protection/face 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.

## 2.3. Other hazards

Inhalation of dust or fumes leads to irritation of respiratory system. Inhalation of higher concentrations may cause metal fume fever.

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

Dangerous components:

CAS-Nr.	EINECS	Chemical name	from %	till %	Hazard pictograms	R phrases	Index Number
28182-81-2	500-060-2	Hexane, 1,6-diisocyanato-, homopolymer	50	100	Xi, Xn	36, 43	-
123-86-4	271-084-6	n-Butyl acetate	25	50	-	10, 66, 67	-
822-06-0	200-849-9	1,6-Hexamethylene diisocyanate	0,1	0,5	T	23, 36/37/ 38, 42/43	-

Labelling (CLP):

CAS-Nr.	EINECS	Chemical name	Hazard pictograms	Signal word	Hazard statements
28182-81-2	500-060-2	Hexane, 1,6-diisocyanato-, homopolymer	GHS07, GHS08	Warning	H319, H317
123-86-4	271-084-6	n-Butyl acetate	GHS02, GHS07	Warning	H226, H336
822-06-0	200-849-9	1,6-Hexamethylene diisocyanate	GHS06, GHS08	Danger	H315, H319, H331, H335, H317, H334

Additional information: For the wording of the listed risk phrases refer to section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

General information: Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance.

After inhalation: Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion. If symptoms persist, call a physician.

After skin contact: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. If symptoms persist, call a physician.

After eye contact: Flush eyes with water as a precaution. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.

After swallowing: Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. Obtain medical attention.

### 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:

Dry extinguishing powder, alcohol-resistant foam

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

Do not allow run-off from firefighting to enter drains or water courses.!

### 5.3. Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, containers should be stored separately in closed containments.

## SECTION 6: Accidental release measures

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

Shut off all sources of ignition. Evacuate area. Warn affected surroundings.

Wear respiratory protection, eye protection, hand protection and body protection (see chapter Personal Protection).

### 6.2. Environmental precautions

Do not allow to enter sewers/ surface or ground water.

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

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Keep in suitable, closed containers for disposal.

### 6.4. Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Avoid exceeding of the given occupational exposure limits. Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is being used. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms.

Advice on protection against fire and explosion: Avoid formation of aerosol. Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge.

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

No smoking. Keep container tightly closed in a dry and well-ventilated place.

Further information on storage conditions: Store between 5°C and 25°C

PROTECT FROM FREEZING!!

Other data: No decomposition if stored and applied as directed.

### 7.3. Specific end use(s)

No further relevant information available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Ingredients with limit values that require monitoring at the workplace:	
822-06-0 1,6-Hexamethylene diisocyanate	
AGW	0,035 mg/m <sup>3</sup>

### 8.2. Exposure controls

Respiratory protection: In the case of vapour formation use a respirator with an approved filter.

Protection of hands: Solvent-resistant gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it. Before removing gloves clean them with soap and water.



Protective gloves

Eye protection: Eye wash bottle with pure water. Tightly fitting safety goggles.

Body protection: Choose body protection according to the amount and concentration of the dangerous substance at the work place.

General protective and hygienic measures: Handle in accordance with good industrial hygiene and safety practice. When using the substance, do not eat or drink.

## SECTION 9: Physical and chemical properties

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

General Information

Appearance:

Form: liquid

Flow time: 40 s | 4 mm | DIN 53211

Boiling point/boiling range: > 36 °C

Flash point: 35 °C

Note: DIN 53213

Vapour pressure: < 1.000 hPa at 50 °C

Density: 1,07 g/cm<sup>3</sup> at 23 °C

## 9.2. Other information

No further relevant information available.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No further relevant information available.

### 10.2. Chemical stability

No decomposition if used and stored according to specifications.

### 10.3. Possibility of hazardous reactions

Vapours may form explosive mixture with air.

### 10.4. Conditions to avoid

No further relevant information available.

### 10.5. Incompatible materials

No further relevant information available.

### 10.6. Hazardous decomposition products

No further relevant information available.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Skin irritation: May cause skin irritation and/or dermatitis.

Eye irritation: Vapours may cause irritation to the eyes, respiratory system and the skin.

Sensitisation: Causes sensitization.

Further information: The product itself has not been tested. Solvents may degrease the skin.

## SECTION 12: Ecological information

### 12.1. Toxicity

No further relevant information available.

### 12.2. Persistence and degradability

No further relevant information available.

### 12.3. Bio-accumulative potential

German water hazard class:

WGK 1 – slightly hazard to waters

Classification according to the Administrative Regulation of Substances Hazardous to Water (VwVwS)

### 12.4. Mobility in soil

Do not allow product to reach ground water, water course or sewage system.

### 12.5. Results of PBT and vPvB assessment

No further relevant information available.

### 12.6. Other adverse effects

No further relevant information available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Offer surplus and non-recyclable solutions to a licensed disposal company.

European waste catalogue:

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste Codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

Uncleaned packaging:

Recommendation: Dispose of as unused product. Empty remaining contents. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

## SECTION 14: Transport information

### 14.1. UN number

ADR, IMDG, IATA: 1263 FARBZUBEHOERSTOFFE

### 14.2. UN proper shipping name

ADR: 1866 1263 FARBZUBEHOERSTOFFE

1263 PAINT RELATED MATERIAL

IMDG, IATA: 1263 PAINT RELATED MATERIAL

### 14.3. Transport hazard class(es)

ADR:



Class: 3, Flammable liquids

Label: 3

IMDG, IATA:



Class: 3, Flammable liquids

### 14.4. Packing group

ADR, IMDG, IATA: III

### 14.5. Environmental hazards

Marine pollutant: No

### 14.6. Special precautions for user

Warning: Miscellaneous dangerous substances and articles.

Danger code (Kemler): 30

EMS number: F-E, S-E

### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

Transport/Additional information:

ADR

Classification Code : F1

Packing instruction (cargo aircraft): 310

Packing instruction (passenger aircraft): 309

Packing instruction (passenger aircraft): Y309

Transport category 3

Tunnel restriction code: D/E

UN "Model Regulation": UN1263, PAINT RELATED MATERIAL, LIQUID, FLAMMABLE, 3, III

## SECTION 15: Regulatory information

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

National regulations:

Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

Further information: Protect against freezing.

VOC Substances Data: 25 % 267,5 g/l

### 15.2. Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

### 16.1. Wording of R und H phrases

Relevant phrases

(serves as the explanation for only the hazard and risk phrases noted in the MSDS, e.g. in chapter 3)

H226: Flammable liquid and vapour.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H331: Toxic if inhaled.

H335: May cause respiratory irritation.

H317: May cause an allergic skin reaction

H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled

H336: May cause drowsiness or dizziness

R10: Flammable

R23: Also toxic by inhalation

R36: Irritating to eyes

R36/37/38: Irritating to eyes, respiratory system and skin

R43: May cause sensitisation by skin contact

R42/43: May cause sensitization by inhalation and skin contact

R66: Repeated exposure may cause skin dryness or cracking

R67: Vapours may cause drowsiness and dizziness

### 16.2. Further information

The information provided in this material safety data sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warrant or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. This information shall not constitute a guarantee for any specific product feature and shall not establish a legally valid contractual relationship.