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

1.1 Product identifier
Grip GREEN

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses
Plating agent

1.3 Details of the supplier of the safety data sheet
Supplier
HOLMENKOL GmbH

Street : Monrepos 7

Postal code/City : 71634 Ludwigsburg

Country : Deutschland

Telephone : +49 7141 3894 0

Telefax : +49 7141 3894 100

Information contact : info@eimermacher.de

www.eimermacher.de

1.4 Emergency telephone number

siehe Telefonnummer des Herstellers (während normaler Geschäftszeiten) oder:

Tox Info Suisse: 145 (24-h-Notrufnummer)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008 [CLP]
None

2.2 Label elements
None

2.3 Other hazards
On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

Adverse human health effects and symptoms
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

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

SECTION 3: Composition/information on ingredients

3.2 Mixtures
Hazardous ingredients

None

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

When in doubt or if symptoms are observed, get medical advice.

Following inhalation

Remove casualty to fresh air and keep warm and at rest. In case of respiratory tract irritation, consult a physician.

In case of skin contact

Remove mechanically (e.g. dab away using wadding or cellulose material) then thoroughly wash the affected skin with a mild cleansing agent and water. After contact with molten product, cool skin area rapidly with cold water. In case of skin irritation, consult a physician.

After eye contact

In case of eye irritation consult an ophthalmologist.

Following ingestion

Do NOT induce vomiting. Observe risk of aspiration if vomiting occurs. Seek medical advice immediately (poison centre).

4.2 Most important symptoms and effects, both acute and delayed

Symptoms

Important or further important known symptoms and effects are described in the GHS labelling of the product (see section 2) and in section 11 (Toxicological information). (Further) symptoms and/or effects are not yet known.
In our experience, no special hazards are to be expected if the product is handled properly and is used as intended.

4.3 Indication of any immediate medical attention and special treatment needed

treatment: Symptoms (decontamination, vital functions), no known specific antidote.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Sand , Carbon dioxide (CO2) , Dry extinguishing powder , Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

Water

5.2 Special hazards arising from the substance or mixture

Thermal decomposition can lead to the escape of irritating gases and vapours.

5.3 Advice for firefighters

Special protective equipment for firefighters

Full protection suit , Use suitable breathing apparatus.

5.4 Additional information

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

See protective measures under point 7 and 8. Special danger of slipping by leaking/spilling product. Provide adequate ventilation.

6.2 Environmental precautions

Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

Take up mechanically. Clear contaminated areas thoroughly. Treat the recovered material as prescribed in the section on waste disposal.

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

Use only in well-ventilated areas. It is recommended to design all work processes always so that the following is excluded: Inhalation of vapours or spray/mists
Use only in well-ventilated areas.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed. Protect against UV-radiation/sunlight , Heat.

Requirements for storage rooms and vessels

Floors should be impervious, resistant to liquids and easy to clean. Keep/Store only in original container. Keep container tightly closed.

7.3 Specific end use(s)

Observe instructions for use. see section 1.2

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

None

8.2 Exposure controls

Personal protection equipment

Use personal protection equipment.

Eye/face protection

Eye glasses with side protection EN 166

Skin protection

Hand protection

By short-term hand contact : Hand protection is not required.

By long-term hand contact : Check leak tightness/impermeability prior to use.
Suitable material Butyl caoutchouc (butyl rubber) , NBR (Nitrile rubber)
Breakthrough time 480 min

Remark : When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. EN ISO 374

Body protection

Wear anti-static footwear and clothing
Protective clothing. EN 13034 Natural fibres (e.g. cotton) , heat-resistant synthetic fibres
Chemical resistant safety shoes DIN EN 13832-2

Respiratory protection

Usually no personal respirative protection necessary.

General information

When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : solid

Colour : white

Odour : characteristic

Safety characteristics

Physical state :			Liquid		
Solidifying point :	(1013 hPa)		55 - 65	°C	
Melting point/freezing point :			not determined		
Initial boiling point and boiling range :	(1013 hPa)		No data available		
Decomposition temperature :			not determined		
Flash point :		>	100	°C	
Auto-ignition temperature :			not applicable		
Lower explosion limit :			not applicable		
Upper explosion limit :			not applicable		
Vapour pressure :	(50 °C)		No data available		
Density :	(20 °C)		No data available		
Solvent separation test :	(20 °C)		No data available		
Water solubility :	(20 °C)		practically insoluble		
Fat solubility :	(20 °C)		Not determined.		
pH :			not applicable		
log P O/W :			not determined		
Flow time :	(20 °C)		not applicable		DIN-cup 4 mm
Viscosity :	(20 °C)		not applicable		
Cinematic viscosity :	(40 °C)		not relevant		
Odour threshold :			not determined		
Relative vapour density :	(20 °C)		not determined		
Vapourisation rate :			not determined		
Flammable solids :	Not applicable.				
Flammable gases :	Not applicable.				
Oxidising liquids :	Not relevant.				
Explosive properties :	Not applicable.				
Corrosive to metals :	Not relevant.				

9.2 Other information

None

SECTION 10: Stability and reactivity

10.1 Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2 Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

See section 7 of the safety data sheet.

10.5 Incompatible materials

None known.

10.6 Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION 11: Toxicological information

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

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

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

Respiratory or skin sensitisation
Based on available data, the classification criteria are not met.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
Carcinogenicity
Based on available data, the classification criteria are not met.
Germ cell mutagenicity
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.

11.2 Information on other hazards
Endocrine disrupting potential:
The product does not contain any substance above the legal limits that is included in the list established under Article 59(1) of Regulation (EC) No 1907/2006 on the basis of endocrine disrupting properties or that has endocrine disrupting or endocrine damaging properties according to Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

Other indications of toxicity
The product has not been tested.The statements on toxicology were derived from the properties of the individual components.

SECTION 12: Ecological information

12.1 Toxicity
The product has not been tested. The statement is derived from the properties of the single components.

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

12.2 Persistence and degradability
The insoluble part can be precipitated mechanically in suitable sewage treatment plants.

12.3 Bioaccumulative potential
No information available.

12.4 Mobility in soil
No information available.

12.5 Results of PBT and vPvB assessment
This product does not contain components in concentrations of 0.1% or higher which are classified as either persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB).
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Endocrine disrupting properties
The product does not contain any substance above the legal limits that is included in the list established under Article 59(1) of Regulation (EC) No 1907/2006 on the basis of endocrine disrupting properties or that has endocrine disrupting

or endocrine damaging properties according to Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7 Other adverse effects

The product does not contain any substances listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

12.8 Additional ecotoxicological information

Additional information

Do not allow uncontrolled discharge of product into the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Dispose according to legislation. (CH: Verordnung über den Verkehr mit Abfällen (VeVA), Verordnung über die Vermeidung und die Entsorgung von Abfällen (VVEA))

13.2 Additional information

P501 - Return partially emptied packaging/container/can to the point of sale or to a special waste collection point. Dispose of empty packaging/container/can to municipal waste. Non-contaminated packages may be recycled.

SECTION 14: Transport information

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.

14.5 Environmental hazards

No dangerous good in sense of these transport regulations.

14.6 Special precautions for user

None

14.7 Maritime transport in bulk according to IMO instruments

No transport as bulk according to IBC Code.

SECTION 15: Regulatory information

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

National regulations

CH: Chemicals Ordinance, ChemO

Other regulations, restrictions and prohibition regulations

Switzerland

VOCV-Regulation

See section 9.1

15.2 Chemical Safety Assessment

A chemical safety assessment has not been carried out for this preparation. For the following substances of this mixture/preparation a chemical safety assessment has been carried out :

None

SECTION 16: Other information

16.1 Indication of changes

None

16.2 Abbreviations and acronyms

ADR = European Agreement concerning the carriage of Dangerous goods by Road
ADN = European Agreement concerning the Carriage of Dangerous Goods by Inland Waterways
ATE = Estimated values for acute toxicity
AwSV = Ordinance on Installations for Handling Substances Hazardous to Water
CAS = Chemical Abstract Service Number
CE = European Community
CLP = EC Regulation 1272/2008
CMR = cancerogen mutagen reprotoxic
DIN = German Institute for Standardisation
DNEL = Derived No Effect Level
DMEL = Derived Minimum Effect Level
EC50 = Mean effective concentration that induces a defined effect other than death in a test population
EG = European Community
EN = European standards
IATA = International Air Transport Association Dangerous Goods Regulation
IBC-Code = International Code for the construction and equipment of ships carrying dangerous chemicals in large quantities
IMDG = International Maritime Code for dangerous goods
ISO = International Organization for Standardization
LC50 = Lethal Concentration 50%
LD50 = Lethal dose 50%
MAK = Maximum workplace concentration
MARPOL = International Convention for the Protection of the Marine Environment from Ship-generated Litter
NOEC = No Observed Effect Concentration
OECD = Organisation for Economic Cooperation and Development
PBT = Persistent, bioaccumulative and toxic
pH = potential of hydrogen
PNEC = Predicted no effect concentration
PPM = parts per million
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals (EC Regulation 1907/2006)
RID = Regulation concerning the international transport of dangerous goods by train
TRGS = Technical rules for hazardous substances (german rules)
TWA = Time-weighted average exposure limit
UN-Number = UN number for the transport of dangerous goods
vPvB = Very Persistent and very Bioaccumulative as for REACH Regulation
VOC = Volatile organic Compounds

16.3 Key literature references and sources for data

Storage of hazardous substances" guidelines, 3rd revised and updated edition 2018

16.4 Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

16.5 Relevant H- and EUH-phrases (Number and full text)

None

16.6 Training advice

None

16.7 Additional information

None

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.