Safety data sheet
according to 1907/2006/EC, Article 31

Heimerle + Meule
Heimerle + Meule Group

Printing date: 26.05.2020 *Version number 10* *Revision:_____ 26.05.2020*

*

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

· **1.1 Product identifier**

· **Trade name:** **Gold plating bath GP 206, 2 g Au/l**

Goldplattierbad GP 206, 2 g Au/l

· **Article number:**
81012709
81020423 = 1 Liter

· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
Not approved for private consumers.

· **Application of the substance / the mixture** Galvanic bath

· **1.3 Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Heimerle + Meule GmbH
Dennigstrasse 16
D-75179 Pforzheim

Telefon +49 (0) 7231 940-0
Telefax +49 (0) 7231 940-2199

www.heimerle-meule.com
.

· **Further information obtainable from:**
.

Abteilung BASU - Bau/Arbeitssicherheit/Umwelt
sds@heimerle-meule.com

IATA - 24h Emergency Contact -
(Gefahrgut-Notrufnummer)
+49 172 739 6970
.

· **1.4 Emergency telephone number:**

Vergiftungs-Informations-Zentrale Freiburg, ++49 761 19240 (24 h)
(Poisoning Information Center)
.
.

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**

GHS07

Acute Tox. 4 H312 Harmful in contact with skin.
Acute Tox. 4 H332 Harmful if inhaled.
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

(Contd. on page 2)

Safety data sheet
according to 1907/2006/EC, Article 31

Heimerle + Meule
Heimerle + Meule Group

Printing date: 26.05.2020 *Version number 10* *Revision:_____ 26.05.2020*

Trade name: Gold plating bath GP 206, 2 g Au/l
Goldplattierbad GP 206, 2 g Au/l

(Contd. of page 1)

· ***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*

· ***Hazard-determining components of labelling:***
Potassium dicyanoaurate
· ***Hazard statements***
H312+H332 Harmful in contact with skin or if inhaled.
H412 Harmful to aquatic life with long lasting effects.
· ***Precautionary statements***
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P273 Avoid release to the environment.
P280 Wear protective gloves / protective clothing.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER/doctor if you feel unwell.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
· ***Additional information:***
EUH208 Contains Potassium dicyanoaurate. May produce an allergic reaction.
· ***Labelling of packages where the contents do not exceed 125 ml***
· ***Hazard pictograms***

GHS07

· ***Signal word*** *Warning*

· ***Hazard-determining components of labelling:***
Potassium dicyanoaurate
· ***Hazard statements***
H412 Harmful to aquatic life with long lasting effects.
· ***2.3 Other hazards***
· ***Results of PBT and vPvB assessment***
· ***PBT:*** *Not applicable.*
· ***vPvB:*** *Not applicable.*

*
SECTION 3: Composition/information on ingredients

· ***3.2 Chemical characterisation: Mixtures***
· ***Description:*** *Mixture of substances listed below with nonhazardous additions.*

(Contd. on page 3)

Safety data sheet
according to 1907/2006/EC, Article 31

Heimerle + Meule
Heimerle + Meule Group

Printing date: 26.05.2020 Version number 10 Revision: 26.05.2020

Trade name: Gold plating bath GP 206, 2 g Au/l
Goldplattierbad GP 206, 2 g Au/l

(Contd. of page 2)

· **Dangerous components / Information on ingredients:**

CAS: 7758-98-7 EINECS: 231-847-6 Index number: 029-004-00-0 RTECS: GL 8800000	Copper(II) sulphate; copper sulphate; copper sulfate Aquatic Acute 1, H400; Aquatic Chronic 1, H410 Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319	0.25–0.5%
CAS: 13967-50-5 EINECS: 237-748-4 Reg.nr.: 01-2120130777-52	Potassium dicyanoaurate Acute Tox. 2, H300; Acute Tox. 2, H330 Met. Corr.1, H290; Eye Dam. 1, H318 Aquatic Acute 1, H400; Aquatic Chronic 1, H410 Skin Irrit. 2, H315; Skin Sens. 1, H317	0.29%
CAS: 1336-21-6 EINECS: 215-647-6 Index number: 007-001-01-2	ammonia; ammonia solution ...%; ammonia, aqueous solution; Ammonium hydroxide Skin Corr. 1B, H314 Aquatic Acute 1, H400 Specific concentration limit: STOT SE 3; H335: C ≥ 5 %	≥0.1–<0.25%
CAS: 151-50-8 EINECS: 205-792-3 Index number: 006-007-00-5 RTECS: TS 8760000 Reg.nr.: 01-2119486407-29-xxxx	Potassium cyanide Acute Tox. 1, H300; Acute Tox. 1, H310; Acute Tox. 1, H330 STOT RE 1, H372 Met. Corr.1, H290 Aquatic Acute 1, H400; Aquatic Chronic 1, H410	≥0.025–<0.1%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· **4.1 Description of first aid measures**
· **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Personal protection for the First Aider.
Take affected persons out of danger area and lay down.
Involve doctor immediately after a accident or unwell
· **After inhalation:**
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact:** If skin irritation continues, consult a doctor.
· **After eye contact:** Rinse opened eye for several minutes under running water.
· **After swallowing:**
Drink plenty of water and provide fresh air. Call for a doctor immediately.
A person vomiting while laying on their back should be turned onto their side.
· **4.2 Most important symptoms and effects, both acute and delayed** Cyanides poisoning
· **Information for doctor:** Cyanides poisoning
· **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:** Use fire extinguishing methods suitable to surrounding conditions.
· **For safety reasons unsuitable extinguishing agents:** Water with full jet

(Contd. on page 4)

Safety data sheet
according to 1907/2006/EC, Article 31

Heimerle + Meule
Heimerle + Meule Group

Printing date: 26.05.2020 *Version number 10* *Revision:_____ 26.05.2020*

Trade name: Gold plating bath GP 206, 2 g Au/l
Goldplattierbad GP 206, 2 g Au/l

(Contd. of page 3)

· ***5.2 Special hazards arising from the substance or mixture*** *In case of fire, the following can be released:*
· ***5.3 Advice for firefighters***
· ***Protective equipment:***
Mount respiratory protective device.

Wear self-contained respiratory protective device.

Beware: Filter masks provide protection for a short period of time only. They should only be used in exceptional cases, that is if a small amount of the substance has spilled out or in order to fight spillages and fire
· ***Additional information***
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

· ***6.1 Personal precautions, protective equipment and emergency procedures***
Wear protective equipment. Keep unprotected persons away.
Use respiratory protective device against the effects of fumes/dust/aerosol.
Only handle and refill product in closed systems.
· ***6.2 Environmental precautions:***
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
· ***6.3 Methods and material for containment and cleaning up:***
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
· ***6.4 Reference to other sections***
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

· ***7.1 Precautions for safe handling***
Keep receptacles tightly sealed.
Ensure good ventilation/exhaustion at the workplace.
he usual precautionary measures are to be adhered to when handling chemicals.
Wear suitable respiratory protective device when decanting larger quantities without extractor facilities.
Do not dry clean dust covered objects and floors. Wash thoroughly with plenty of water.
· ***Information about fire - and explosion protection:*** *No special measures required.*

· ***7.2 Conditions for safe storage, including any incompatibilities***
· ***Storage:***
· ***Requirements to be met by storerooms and receptacles:***
Observe official regulations on storing packagings .
Observe official regulations on storing packagings .
Prevent any seepage into the ground.
· ***Information about storage in one common storage facility:***
Store away from foodstuffs.

_
· ***Further information about storage conditions:*** *Keep container tightly sealed.*

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Heimerle + Meule
Heimerle + Meule Group

Printing date: 26.05.2020 *Version number 10* *Revision:_____ 26.05.2020*

Trade name: Gold plating bath GP 206, 2 g Au/l
Goldplattierbad GP 206, 2 g Au/l

(Contd. of page 4)

· ***Storage class:*** *12*
· ***7.3 Specific end use(s)*** *No further relevant information available.*

*

SECTION 8: Exposure controls/personal protection

· ***Additional information about design of technical facilities:*** *No further data; see item 7.*

· ***8.1 Control parameters***

· ***Ingredients with limit values that require monitoring at the workplace:***	
CAS: 13967-50-5 Potassium dicyanoaurate	
WEL (Great Britain)	*Long-term value: 5 mg/m³* *as CN; Sk*
MAK (Germany)	*Long-term value: 2E mg/m³* *als CN*
CAS: 1336-21-6 ammonia	
AGW (Germany)	*Long-term value: 14 mg/m³, 20 ppm* *2(I);DFG, EU, Y*
CAS: 151-50-8 Potassium cyanide	
IOELV (European Union)	*Short-term value: 5 mg/m³* *Long-term value: 1 mg/m³* *Skin; as cyanide*
AGW (Germany)	*Long-term value: 1 E mg/m³* *5(II);EU, H, Y*

· ***Regulatory information***
WEL (Great Britain): EH40/2018
MAK (Germany): MAK- und BAT-Liste
AGW (Germany): TRGS 900
IOELV (European Union): (EU) 2017/164
· ***Additional information:*** *The lists valid during the making were used as basis.*

· ***8.2 Exposure controls***
· ***Personal protective equipment:***
· ***General protective and hygienic measures:***
The usual precautionary measures are to be adhered to when handling chemicals.
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.
According to EC Directive 89/686/EEC
· ***Respiratory protection:***
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
Beware: Filter masks provide protection for a short period of time only. They should only be used in exceptional cases, that is if a small amount of the substance has spilled out or in order to fight spillages and fire.
according EN 14387
according to EN 143
· ***Recommended filter device for short term use:*** *Combination filter B-P2*

(Contd. on page 6)

Safety data sheet
according to 1907/2006/EC, Article 31

Heimerle + Meule
Heimerle + Meule Group

Printing date: 26.05.2020 Version number 10 Revision: 26.05.2020

Trade name: Gold plating bath GP 206, 2 g Au/l
Goldplattierbad GP 206, 2 g Au/l

(Contd. of page 5)

· **Protection of hands:**

Protective gloves

according to EN 374
To avoid skin problems reduce the wearing of gloves to the required minimum.
Only use chemical-protective gloves with CE-labelling of category III.
Sensibilisation by the components in the glove materials is possible.
Check the permeability prior to each anewed use of the glove.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
Prior to working with gloves the rubbing in with tanniferous skin-protecting agents for the avoidance of skin softening due to perspiration is recommended.

· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
Nitrile rubber, NBR
Recommended thickness of the material: ≥ 0.4 mm

· **Penetration time of glove material**
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.
For the mixture of chemicals mentioned below the penetration time has to be at least 480 minutes (Permeation according to EN 374 Part 3: Level 3).
Value for the permeation: Level ≤ 3

· **Not suitable are gloves made of the following materials:**
Leather gloves
Strong material gloves

· **Eye protection:** Goggles recommended during refilling

· **Body protection:** Protective work clothing

*

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**
· **General Information**
· **Appearance:**

Form:	Fluid
Colour:	Blue
· **Odour:**	Characteristic
· **Odour threshold:**	Not determined.
· **pH-value at 20°C (68°F):**	8
· **Change in condition**	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	100°C (212°F)

(Contd. on page 7)

Safety data sheet
according to 1907/2006/EC, Article 31

Heimerle + Meule
Heimerle + Meule Group

Printing date: 26.05.2020 *Version number 10* *Revision: 26.05.2020*

Trade name: Gold plating bath GP 206, 2 g Au/l
Goldplattierbad GP 206, 2 g Au/l

(Contd. of page 6)

· **Flash point:**	Not applicable.
· **Flammability (solid, gas):**	Not applicable.
· **Decomposition temperature:**	Not determined.
· **Auto-ignition temperature:**	Product is not selfigniting.
· **Explosive properties:**	Product does not present an explosion hazard.
· **Explosion limits:**	
Lower:	Not determined.
Upper:	Not determined.
· **Vapour pressure at 20°C (68°F):**	23 hPa (17.3 mm Hg)
· **Density at 20°C (68°F):**	1.03 g/cm³ (8.6 lbs/gal)
· **Relative density**	Not determined.
· **Vapour density**	Not determined.
· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with water:**	Fully miscible.
· **Partition coefficient: n-octanol/water:**	Not determined.
· **Viscosity:**	
Dynamic:	Not determined.
Kinematic:	Not determined.
· **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**
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **10.3 Possibility of hazardous reactions** Reacts with acids, alkalis and oxidising agents.
· **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 dangerous decomposition products known.

*

SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**
· **Acute toxicity**
Harmful in contact with skin or if inhaled.

· **LD/LC50 values relevant for classification:**		
ATE (Acute Toxicity Estimates)		
Oral	LD50	10,000 mg/kg (Rat)
Inhalative	LC50/4 h	17.2 mg/l

CAS: 7758-98-7 Copper(II) sulphate		
Oral	LD50	500 mg/kg (ATE)
CAS: 13967-50-5 Potassium dicyanoaurate		
Oral	LD50	29 mg/kg (Rat)

(Contd. on page 8)

Safety data sheet
according to 1907/2006/EC, Article 31

Heimerle + Meule
Heimerle + Meule Group

Printing date: 26.05.2020 Version number 10 Revision: 26.05.2020

Trade name: Gold plating bath GP 206, 2 g Au/l
Goldplattierbad GP 206, 2 g Au/l

(Contd. of page 7)

Inhalative	LC50/4 h	0.05 mg/l (ATE)
CAS: 151-50-8 Potassium cyanide		
Oral	LD50	5 mg/kg (Rat)
Dermal	LD50	5 mg/kg (ATE)
Inhalative	LC50/4 h	0.005 mg/l (ATE)

· ***Primary irritant effect:***
· ***Skin corrosion/irritation*** *Based on available data, the classification criteria are not met.*
· ***Serious eye damage/irritation*** *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 (carcinogenity, mutagenicity and toxicity 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.*

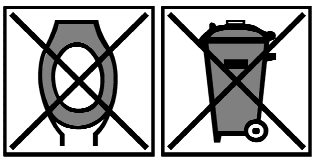
SECTION 12: Ecological information

· ***12.1 Toxicity***
· ***Aquatic toxicity:*** *No further relevant information available.*
· ***12.2 Persistence and degradability*** *No further relevant information available.*
· ***12.3 Bioaccumulative potential*** *No further relevant information available.*
· ***12.4 Mobility in soil*** *No further relevant information available.*
· ***Ecotoxical effects:***
· ***Remark:*** *Harmful to fish*
· ***Additional ecological information:***
· ***General notes:***
At present there are no ecotoxicological assessments.
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
Harmful to aquatic organisms
· ***12.5 Results of PBT and vPvB assessment*** *Not applicable.*
· ***PBT:*** *Not applicable.*
· ***vPvB:*** *Not applicable.*
· ***12.6 Other adverse effects*** *No further relevant information available.*

*

SECTION 13: Disposal considerations

· ***13.1 Waste treatment methods***
· ***Recommendation***



Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact manufacturer for recycling information.
· ***Waste disposal key:***
The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

(Contd. on page 9)

Safety data sheet
according to 1907/2006/EC, Article 31

Heimerle + Meule
Heimerle + Meule Group

Printing date: 26.05.2020 *Version number 10* *Revision:_____ 26.05.2020*

Trade name: Gold plating bath GP 206, 2 g Au/l
Goldplattierbad GP 206, 2 g Au/l

(Contd. of page 8)

· **European waste catalogue**	
11 00 00	*WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO-METALLURGY*
11 01 00	*wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising)*
*11 01 98**	*other wastes containing hazardous substances*
HP6	*Acute Toxicity*
HP14	*Ecotoxic*

· ***Uncleaned packaging:***
· ***Recommendation:***
Packaging which is uncleaned or soiled with product remains is to be treated like the product itself
Packaging free of product remains is to be supplied refuse for recycling. Only if no adequate collecting system is available, they may be disposed of through the domestic rubbish
Disposal must be made according to official regulations.
· ***Recommended cleansing agents:*** *Water, if necessary together with cleansing agents.*

SECTION 14: Transport information

· ***14.1 UN-Number*** · ***ADR, ADN, IMDG, IATA***	*Void*
· ***14.2 UN proper shipping name*** · ***ADR, ADN, IMDG, IATA***	*Void*
· ***14.3 Transport hazard class(es)*** · ***ADR, ADN, IMDG, IATA*** · ***Class***	*Void*
· ***14.4 Packing group*** · ***ADR, IMDG, IATA***	*Void*
· ***14.5 Environmental hazards:*** · ***Marine pollutant:***	*No*
· ***14.6 Special precautions for user***	*Not applicable.*
· ***14.7 Transport in bulk according to Annex II of Marpol and the IBC Code***	*Not applicable.*
· ***Transport/Additional information:***	
· ***IATA*** · ***Remarks:***	*24h Emergency Contact - (Gefahrgut-Notrufnummer)* *+49 172 739 6970*
· ***UN "Model Regulation":***	*Void*

*

SECTION 15: Regulatory information

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

COUNCIL DIRECTIVE 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from

(Contd. on page 10)

Safety data sheet
according to 1907/2006/EC, Article 31

Heimerle + Meule
Heimerle + Meule Group

Printing date: 26.05.2020 *Version number 10* *Revision:_____ 26.05.2020*

Trade name: Gold plating bath GP 206, 2 g Au/l
Goldplattierbad GP 206, 2 g Au/l

(Contd. of page 9)

the risks related to chemical agents at work (fourteenth individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC)

DIRECTIVE 2012/18/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 on the control of major-accident hazards involving dangerous substances, amending and subsequently repealing Council Directive 96/82/EC

· **TSCA (Toxic Substances Control Act)**
All ingredients are listed.

· **GADSL**		
CAS: 7758-98-7	Copper(II) sulphate	D/P(LR)
CAS: 10102-18-8	sodium selenite	D(FI)

· ***Directive 2012/18/EU***
· ***Named dangerous substances - ANNEX I*** None of the ingredients is listed.
· ***REGULATION (EC) No 1907/2006 ANNEX XVII*** Conditions of restriction: 3

· ***National regulations:***

· ***Technical instructions (air):***

Class	Share in %
III	0.3

· ***Waterhazard class:*** Water hazard class 2 (Self-assessment): hazardous for water.

· ***Other regulations, limitations and prohibitive regulations*** -
· ***15.2 Chemical safety assessment:*** A Chemical Safety Assessment has not been carried out.

*
SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· ***Reasons for revise***
If necessary, this saftey data sheet can revised according to legal guidelines.

Our current version for your reference is available on our website www.heimerle-meule.com
· ***Date from last issue :*** *18.09.2019*

· ***Relevant phrases***
H290 May be corrosive to metals.
H300 Fatal if swallowed.
H302 Harmful if swallowed.
H310 Fatal in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
H372 Causes damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

· ***Department issuing SDS:***
Department BASU - Bau/Arbeitssicherheit/Umwelt

sds@heimerle-meule.com

(Contd. on page 11)

Safety data sheet
according to 1907/2006/EC, Article 31

Heimerle + Meule
Heimerle + Meule Group

Printing date: 26.05.2020 *Version number 10* *Revision:_____ 26.05.2020*

Trade name: Gold plating bath GP 206, 2 g Au/l
Goldplattierbad GP 206, 2 g Au/l

(Contd. of page 10)

.

· ***Contact:***
Herr Thomas Knuth
Knuth@heimerle-meule.com
sds@heimerle-meule.com

· ***Abbreviations and acronyms:***
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
AwSV: Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (German regulation).
TRGS: Technische Regeln für Gefahrstoffe (German regulation)
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Met. Corr.1: Corrosive to metals – Category 1
Acute Tox. 1: Acute toxicity - oral – Category 1
Acute Tox. 2: Acute toxicity - oral – Category 2
Acute Tox. 4: Acute toxicity - oral – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

· **** Data compared to the previous version altered.***