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

Heimerle + Meule
Heimerle + Meule Group

Printing date: 18.06.2019 *Version number 8* *Revision:_____ 18.06.2019*

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

· **1.1 Product identifier**

· **Trade name:** **Bright nickel plating bath 219 G**

Glanznickelbad 219 G

· **Article number:** 81012583
· **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)
.
.

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**
· **Classification according to Regulation (EC) No 1272/2008**

GHS08 health hazard

Resp. Sens. 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Muta. 2	H341	Suspected of causing genetic defects.
Carc. 1A	H350i	May cause cancer by inhalation.
Repr. 1B	H360D	May damage the unborn child.
STOT RE 1	H372	Causes damage to organs through prolonged or repeated exposure.

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GHS09 environment

Aquatic Acute 1	*H400*	*Very toxic to aquatic life.*
Aquatic Chronic 1	*H410*	*Very toxic to aquatic life with long lasting effects.*

GHS07

Acute Tox. 4	*H302*	*Harmful if swallowed.*
Skin Irrit. 2	*H315*	*Causes skin irritation.*
Skin Sens. 1	*H317*	*May cause an allergic skin reaction.*

· ***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 GHS08 GHS09

· ***Signal word*** *Danger*

· ***Hazard-determining components of labelling:***
nickel sulphate
nickel dichloride
· ***Hazard statements***
H302 Harmful if swallowed.
H315 Causes skin irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H341 Suspected of causing genetic defects.
H350i May cause cancer by inhalation.
H360D May damage the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.
· ***Precautionary statements***
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
· ***Additional information:***
Restricted to professional users.

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· ***Labelling of packages where the contents do not exceed 125 ml***
· ***Hazard pictograms***

GHS07 GHS08 GHS09

· ***Signal word*** *Danger*

· ***Hazard-determining components of labelling:***
nickel sulphate
nickel dichloride
· ***Hazard statements***
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H341 Suspected of causing genetic defects.
H350i May cause cancer by inhalation.
H360D May damage the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure.
· ***Precautionary statements***
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P284 [In case of inadequate ventilation] wear respiratory protection.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
· ***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.*

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

CAS: 7786-81-4 EINECS: 232-104-9 Index number: 028-009-00-5	nickel sulphate Resp. Sens. 1, H334; Muta. 2, H341; Carc. 1A, H350i; Repr. 1B, H360D; STOT RE 1, H372 Aquatic Acute 1, H400; Aquatic Chronic 1, H410 Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Irrit. 2, H315; Skin Sens. 1, H317 Specific concentration limits: STOT RE 1; H372: C ≥ 1 % STOT RE 2; H373: 0.1 % ≤ C < 1 % Skin Irrit. 2; H315: C ≥ 20 % Skin Sens. 1; H317: C ≥ 0.01 %	25-50%
CAS: 7718-54-9 EINECS: 231-743-0 Index number: 028-011-00-6	nickel dichloride Acute Tox. 3, H301; Acute Tox. 3, H331 Resp. Sens. 1, H334; Muta. 2, H341; Carc. 1A, H350i; Repr. 1B, H360D; STOT RE 1, H372 Aquatic Acute 1, H400; Aquatic Chronic 1, H410 Skin Irrit. 2, H315; Skin Sens. 1, H317 Specific concentration limits: STOT RE 1; H372: C ≥ 1 % STOT RE 2; H373: 0.1 % ≤ C < 1 % Skin Irrit. 2; H315: C ≥ 20 % Skin Sens. 1; H317: C ≥ 0.01 %	3-20%
CAS: 10043-35-3 EINECS: 233-139-2 Index number: 005-007-00-2 RTECS: ED 4550000 Reg.nr.: 01-2119486683-25	boric acid Repr. 1B, H360FD Specific concentration limit: Repr. 1B; H360: C ≥ 5.5 %	<5.5%

· **SVHC**
!!! Substances of Very High Concern !!!

CAS: 10043-35-3	boric acid

· **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:**
Immediately remove any clothing soiled by the product.
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 and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
Immediately rinse with water.

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If skin irritation continues, consult a doctor.
· ***After eye contact:*** *Rinse opened eye for several minutes under running water.*
· ***After swallowing:***
Call for a doctor immediately.
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.
Rinse out mouth and then drink plenty of water.
· ***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:*** *Use fire extinguishing methods suitable to surrounding conditions.*
· ***For safety reasons unsuitable extinguishing agents:*** *Water with full jet*
· ***5.2 Special hazards arising from the substance or mixture***
During heating or in case of fire poisonous gases are produced.
· ***5.3 Advice for firefighters***
· ***Protective equipment:***
Do not inhale explosion gases or combustion gases.
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***
Mount respiratory protective device.
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:***
Do not allow product to reach sewage system or any water course.
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).
Dispose contaminated material as waste according to item 13.
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.

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See Section 13 for disposal information.

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SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**
Carry out filling operations only at sites with extractors available.
Keep receptacles tightly sealed.
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
he usual precautionary measures are to be adhered to when handling chemicals.
Prevent formation of aerosols.
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:** Keep respiratory protective device available.

· **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.
· **Storage class:** 6.1 D
· **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: 7786-81-4 nickel sulphate	
WEL (Great Britain)	Long-term value: 0.1 mg/m³ as Ni; Sk; Carc; Sen
AGW (Germany)	Long-term value: 0.030E mg/m³ 8(II);AGS, Sh, Y, 10, 24, 31
TRGS 910 (Germany)	Short-term value: 0.006 (A) mg/m³ Long-term value: 0.006 (A) mg/m³ 8, Konzentrationen beziehen sich auf Ni-Gehalt
CAS: 7718-54-9 nickel dichloride	
WEL (Great Britain)	Long-term value: 0.1 mg/m³ as Ni; Sk; Carc; Sen
AGW (Germany)	Long-term value: 0.030E mg/m³ 8(II);AGS, Sh, Y, 10, 24, 31
TRGS 910 (Germany)	Short-term value: 0.006 (A) mg/m³ Long-term value: 0.006 (A) mg/m³ 8, Konzentrationen beziehen sich auf Ni-Gehalt

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CAS: 10043-35-3 boric acid	
AGW (Germany)	*Long-term value: 0.5* mg/m³* *2(I);*einatembar; AGS, Y, 10*
CAS: 1310-73-2 Natronlauge	
MAK (Germany)	*vgl.Abschn.IIb*

· ***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.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Do not inhale gases / fumes / aerosols.
Avoid contact with the skin.
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-P3*
· ***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.
· ***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.

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The determined penetration times according to EN 374 part III 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:**

Tightly sealed goggles

according to EN 166

· **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:	Green
· **Odour:**	Not applicable.
· **Odour threshold:**	Not determined.
· **pH-value:**	3.6 - 4.6
· **Change in condition**	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	Undetermined.
· **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:**	Not determined.
· **Density:**	Not determined.
· **Relative density**	Not determined.
· **Vapour density**	Not determined.
· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with water:**	Not miscible or difficult to mix.
· **Partition coefficient: n-octanol/water:**	Not determined.

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· ***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 if swallowed.

· ***LD/LC50 values relevant for classification:***		
ATE (Acute Toxicity Estimates)		
Oral	*LD50*	*950 mg/kg*
Inhalative	*LC50/4 h*	*24.2 mg/l*

CAS: 7786-81-4 nickel sulphate		
Oral	*LD50*	*500 mg/kg (ATE)*
Inhalative	*LC50/4 h*	*11 mg/l (ATE)*
CAS: 7718-54-9 nickel dichloride		
Oral	*LD50*	*100 mg/kg (ATE)*
Inhalative	*LC50/4 h*	*3 mg/l (ATE)*
CAS: 10043-35-3 boric acid		
Oral	*LD50*	*2,660 mg/kg (rat)*

· ***Primary irritant effect:***
· ***Skin corrosion/irritation***
Causes skin irritation.
· ***Serious eye damage/irritation*** *Based on available data, the classification criteria are not met.*
· ***Respiratory or skin sensitisation***
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
· ***CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)***
· ***Germ cell mutagenicity***
Suspected of causing genetic defects.
· ***Carcinogenicity***
May cause cancer by inhalation.
· ***Reproductive toxicity***
May damage the unborn child.
· ***STOT-single exposure*** *Based on available data, the classification criteria are not met.*
· ***STOT-repeated exposure***
Causes damage to organs through prolonged or repeated exposure.

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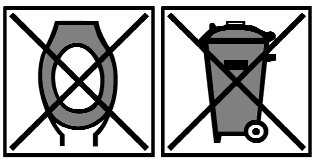
· ***Aspiration hazard*** *Based on available data, the classification criteria are not met.*

*
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:*** *Very toxic for fish*
· ***Additional ecological information:***
· ***General notes:***
At present there are no ecotoxicological assessments.
Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Very toxic for 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.

· ***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*
HP4	*reizend - Hautreizung und Augenschädigung*
HP5	*Spezifische Zielorgan-Toxizität (STOT)/Aspirationsgefahr*
HP6	*akute Toxizität*
HP7	*karzinogen*
HP10	*reproduktionstoxisch*
HP11	*mutagen*

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HP13	sensibilisierend
HP14	ökotoxisch

· ***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.

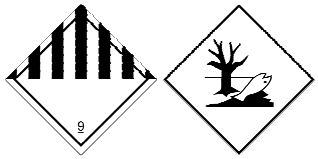
*
SECTION 14: Transport information

· ***14.1 UN-Number***
· ***ADR, IMDG, IATA*** *UN3082*

· ***14.2 UN proper shipping name***
· ***ADR*** *UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (nickel sulphate, nickel dichloride)*
· ***IMDG*** *ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (nickel sulphate, nickel dichloride), MARINE POLLUTANT*
· ***IATA*** *ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (nickel sulphate, nickel dichloride)*

· ***14.3 Transport hazard class(es)***

· ***ADR, IMDG, IATA***



· ***Class*** *9 Miscellaneous dangerous substances and articles.*
· ***Label*** *9*

· ***14.4 Packing group***
· ***ADR, IMDG, IATA*** *III*

· ***14.5 Environmental hazards:*** *Product contains environmentally hazardous substances: nickel sulphate, nickel dichloride*
· ***Marine pollutant:*** *Yes*
Symbol (fish and tree)
· ***Special marking (ADR):*** *Symbol (fish and tree)*
· ***Special marking (IATA):*** *Symbol (fish and tree)*

· ***14.6 Special precautions for user*** *Warning: Miscellaneous dangerous substances and articles.*
· ***Danger code (Kemler):*** *90*
· ***EMS Number:*** *F-A,S-F*
· ***Stowage Category*** *A*

· ***14.7 Transport in bulk according to Annex II of Marpol and the IBC Code*** *Not applicable.*

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· **Transport/Additional information:**	
· **ADR**	
· **Limited quantities (LQ)**	5L
· **Excepted quantities (EQ)**	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· **Transport category**	3
· **Tunnel restriction code**	E
· **IMDG**	
· **Limited quantities (LQ)**	5L
· **Excepted quantities (EQ)**	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· **IATA**	
· **Remarks:**	24h Emergency Contact - (Gefahrgut-Notrufnummer) +49 172 739 6970
· **UN "Model Regulation":**	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (NICKEL SULPHATE, NICKEL DICHLORIDE), 9, III

*

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 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.

· **Directive 2012/18/EU**
· **Named dangerous substances - ANNEX I** None of the ingredients is listed.
· **Seveso category** E1 Hazardous to the Aquatic Environment
· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t
· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t
· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 27, 28, 30

· **National regulations:**
· **Additional classification according to Decree on Hazardous Materials, Annex II:**
Carcinogenic hazardous material group III (dangerous).

· **Information about limitation of use:**
Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.
Exceptions can be made by the authorities in certain cases.
Employment restrictions concerning juveniles must be observed.

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

Heimerle + Meule
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Employment restrictions concerning pregnant and lactating women must be observed.
Employment restrictions concerning women of child-bearing age must be observed.

· **Technical instructions (air):**

Class	Share in %
II	31.1

· **Waterhazard class:** Water hazard class 3 (Self-assessment): extremely hazardous for water.

· **Other regulations, limitations and prohibitive regulations**
-
-

· **Substances of very high concern (SVHC) according to REACH, Article 57**	
CAS: 10043-35-3	boric acid

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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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 :** 12.12.2017

· **Relevant phrases**
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H341 Suspected of causing genetic defects.
H350i May cause cancer by inhalation.
H360D May damage the unborn child.
H360FD May damage fertility. May damage the unborn child.
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
.
· **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).

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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
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 3: Acute toxicity – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Resp. Sens. 1: Respiratory sensitisation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
Muta. 2: Germ cell mutagenicity – Category 2
Carc. 1A: Carcinogenicity – Category 1Ai
Repr. 1B: Reproductive toxicity – Category 1B
Repr. 1B: Reproductive toxicity – Category 1B
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

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