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

Printing date 24.10.2021 Version number 12 Revision: 18.10.2021

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

· **Product identifier**

· **Trade name** **MC-POWERPRO HCR - Komponente A**

· **Relevant identified uses of the substance or mixture and uses advised against** No further relevant information available.

· **Application of the substance / the mixture** Coating
Epoxy coating

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

· **Manufacturer/Supplier:** MC-Bauchemie Müller GmbH & Co. KG
Am Kruppwald 1-8
D-46238 Bottrop
Tel.: +49(0)2041-101-0
Fax.: +49(0)2041-101-400
E-Mail: info@mc-bauchemie.de

MC-Bauchemie AG
Hagackerstr. 10
CH-8953 Dietikon
Tel.: +44-7400510
Fax : +44-7400533

· **Informing department:** msds@mc-bauchemie.de

· **Emergency telephone number:** Tel.: +49 / (0)700 24112112 (MCR)
Tel.: +48612864565

2 Hazards identification

· **Classification of the substance or mixture**

Acute Tox. 5	H333 May be harmful if inhaled.
Skin Irrit. 2	H315 Causes skin irritation.
Eye Irrit. 2A	H319 Causes serious eye irritation.
Skin Sens. 1	H317 May cause an allergic skin reaction.
Carc. 2	H351 Suspected of causing cancer. Route of exposure: Inhalation.
Aquatic Acute 2	H401 Toxic to aquatic life.
Aquatic Chronic 2	H411 Toxic to aquatic life with long lasting effects.

· **Label elements**

· **GHS label elements** The product is classified and labelled according to the Globally Harmonised System (GHS).

· **Hazard pictograms**

GHS07 GHS08 GHS09

· **Signal word** Warning

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· **Hazard-determining components of labelling:**
2,2'-[methylenebis(p-phenyleneoxymethylene)]bisoxirane polymers and homologues, molecular weight < 700
Reaction mass of ethylbenzene and xylene
titanium dioxide
Propyl -2,2-diphenyl-4,4'dipropyloxirane polymers and homologues molecular weight < 700
Epoxyfunktionelles Polymer
1,6-hexene-diglycidylether

· **Hazard statements**
May be harmful if inhaled.
Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
Suspected of causing cancer. Route of exposure: Inhalation.
Toxic to aquatic life with long lasting effects.

· **Precautionary statements**
Avoid breathing dust/fume/gas/mist/vapours/spray.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.
IF INHALED: Call a POISON CENTER/doctor if you feel unwell.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Store locked up.

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterisation: Mixtures**

· **Description:** Resin mixture with colouring agents.
Mixture consisting of the following components.

· **Dangerous components:**

9003-36-5	2,2'-[methylenebis(p-phenyleneoxymethylene)]bisoxirane polymers and homologues, molecular weight < 700 Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; Acute Tox. 5, H303; Acute Tox. 5, H313; Aquatic Acute 2, H401	25-50%
1675-54-3	bis[4-(2,3-epoxypropoxy)phenyl]propane Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	≥5-<25%
	Epoxyfunktionelles Polymer Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; Aquatic Chronic 3, H412	≥10-<25%

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16096-31-4	1,6-hexene-diglycidylether Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; Acute Tox. 5, H313; Aquatic Acute 3, H402; Aquatic Chronic 3, H412	≥2.5-<10%
7631-86-9	silicon dioxide, chemically prepared Acute Tox. 5, H313	<5%
	Reaction mass of ethylbenzene and xylene Flam. Liq. 3, H226; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335; Acute Tox. 5, H303	<5%
13463-67-7	titanium dioxide Carc. 2, H351; Acute Tox. 5, H333	≥0.1-<5%
	Hydrophobes Siliziumdioxid, synthetisch, amorph Acute Tox. 5, H313	<2.5%
222417-26-7	Polyacrylate Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Irrit. 2, H315	≥0.025-<0.25%

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

4 First aid measures

· **Description of first aid measures**
· **After inhalation** Supply fresh air.
· **After skin contact** Instantly wash with water and soap and rinse thoroughly.
· **After eye contact** Rinse opened eye for several minutes under running water. Seek medical treatment.
· **After swallowing** Rinse out mouth and then drink plenty of water. Seek medical treatment.
· **Information for doctor**
· **Most important symptoms and effects, both acute and delayed** No further relevant information available.
· **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Firefighting measures

· **Extinguishing media**
· **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
· **Special hazards arising from the substance or mixture** No further relevant information available.
· **Advice for firefighters**
· **Protective equipment:** No special measures required.

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6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures** Not required.
· **Environmental precautions:** Prevent material from reaching sewage system, holes and cellars.
· **Methods and material for containment and cleaning up:** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
· **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 information on disposal.

7 Handling and storage

· **Handling**
· **Precautions for safe handling** Store in cool, dry place in tightly closed containers.
Open and handle container with care.
· **Information about protection against explosions and fires:** No special measures required.

· **Conditions for safe storage, including any incompatibilities**
· **Storage**
· **Requirements to be met by storerooms and containers:** No special requirements.
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:** Keep container tightly sealed.
· **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

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

· **Control parameters**
· **Components with critical values that require monitoring at the workplace:** The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· **DNELs**		
16096-31-4 1,6-hexene-diglycidylether		
Dermal	DNEL	2.8 mg/kg bw/day (ArL)
Inhalative	DNEL	4.9 mg/m³ (ArL)

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7631-86-9 silicon dioxide, chemically prepared		
Inhalative	DNEL	4 mg/m³ (ArL)

Reaction mass of ethylbenzene and xylene		
Oral	DNEL	1.6 mg/kg bw/Tag (ArL)
		mg/kg bw/Tag (Workers)
Dermal	DNEL	180 mg/kg bw/day (ArL)
Inhalative	DNEL	211 mg/m³ (ArL)

· **PNECs**

16096-31-4 1,6-hexene-diglycidylether	
PNEC	0.0115 mg/l (Fresh water)
	0.00115 mg/l (Mew)
PNEC	0.223 mg/kg dwt (Bod)
	0.0283 mg/kg dwt (Sediment)
	0.283 mg/kg dwt (Fresh water sediment)

· **Additional Occupational Exposure Limit Values for possible hazards during processing:**

1330-20-7 xylene	
PEL (USA)	Long-term value: 435 mg/m³, 100 ppm
REL (USA)	Short-term value: 655 mg/m³, 150 ppm Long-term value: 435 mg/m³, 100 ppm
TLV (USA)	Short-term value: (150) ppm Long-term value: (100) NIC-20 ppm BEI, A4
IOELV (European Union)	Short-term value: 442 mg/m³, 100 ppm Long-term value: 221 mg/m³, 50 ppm Skin
WEL (Great Britain)	Short-term value: 441 mg/m³, 100 ppm Long-term value: 220 mg/m³, 50 ppm Sk; BMGV

100-41-4 ethylbenzene	
PEL (USA)	Long-term value: 435 mg/m³, 100 ppm
REL (USA)	Short-term value: 545 mg/m³, 125 ppm Long-term value: 435 mg/m³, 100 ppm
TLV (USA)	Long-term value: 20 NIC-20 ppm BEI, A3, NIC: OTO, BEI, A3
IOELV (European Union)	Short-term value: 884 mg/m³, 200 ppm Long-term value: 442 mg/m³, 100 ppm Skin
WEL (Great Britain)	Short-term value: 552 mg/m³, 125 ppm Long-term value: 441 mg/m³, 100 ppm Sk

· **Additional information:** The lists that were valid during the compilation were used as basis.

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· **Exposure controls**
· **Personal protective equipment**
· **General protective and hygienic measures** Keep away from foodstuffs, beverages and food.
Instantly remove any soiled and impregnated garments.
Wash hands during breaks and at the end of the work.
Avoid contact with the eyes and skin.
· **Protection of hands:** Protective gloves.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
After use of gloves apply skin-cleaning agents and skin cosmetics.
· **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.
· **Eye protection:** Safety glasses
Tightly sealed safety glasses.
· **Body protection:** Protective work clothing.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**	
· **General Information**	
· **Appearance:**	
Form:	Fluid
Colour:	Pigmented
· **Smell:**	Light
· **Change in condition**	
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	200 °C
· **Flash point:**	>100 °C
· **Ignition temperature:**	184 °C
· **Self-inflammability:**	Product is not selfigniting.
· **Explosive properties:**	Product is not explosive.
· **Steam pressure at 20 °C:**	0.1 hPa
· **Density at 20 °C**	1.3 g/cm³

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· **Solubility in / Miscibility with Water:**	Not miscible or difficult to mix
· **Viscosity: dynamic:**	Not determined.
· **Other information**	No further relevant information available.

10 Stability and reactivity

· **Reactivity**	No further relevant information available.
· **Chemical stability**	
· **Thermal decomposition / conditions to be avoided:**	No decomposition if used according to specifications.
· **Possibility of hazardous reactions**	No dangerous reactions known
· **Conditions to avoid**	No further relevant information available.
· **Incompatible materials:**	No further relevant information available.
· **Hazardous decomposition products:**	No dangerous decomposition products known

11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity**

· **LD/LC50 values that are relevant for classification:**		
9003-36-5 2,2'-[methylenebis(p-phenyleneoxymethylene)]bisoxirane polymers and homologues, molecular weight < 700		
Oral	LD50	>2000 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rabbit)
1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane		
Dermal	LD50	23000 mg/kg (rabbit)
16096-31-4 1,6-hexene-diglycidylether		
Oral	LD50	>8500 mg/kg (rat)
Dermal	LD50	>4900 mg/kg (rat)
7631-86-9 silicon dioxide, chemically prepared		
Oral	LD50	>5000 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rabbit)
Reaction mass of ethylbenzene and xylene		
Oral	LD50	3523-4000 mg/kg (rat)
Dermal	LD50	12126 mg/kg (rabbit)
Inhalative	LC50/4 h	6350-6700 mg/l (rat)

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13463-67-7 titanium dioxide		
Oral	LD50	>10000 mg/kg (rat)
Dermal	LD50	>10000 mg/kg (rabbit)
Inhalative	LC50/4 h	>6.8 mg/l (rat)
Hydrophobes Siliziumdioxid, synthetisch, amorph		
Oral	LD50	>5000 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rabbit)

· **Primary irritant effect:**
· **Skin corrosion/irritation** Irritant for skin and mucous membranes.
· **Serious eye damage/irritation** Irritant effect.
· **Respiratory or skin sensitisation** Sensitization possible by skin contact.
· **Additional toxicological information:** The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:
Irritant
· **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)** Carc. 2

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:**		
9003-36-5 2,2'-[methylenebis(p-phenyleneoxymethylene)]bisoxirane polymers and homologues, molecular weight < 700		
	LC50/96h	>100 mg/l (Daphnia magna)
	EC50/96h	>100 mg/l (Leucidus idus)
1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane		
	IC50	>42.6 mg/l (Bak)
	LC50/96h	2 mg/l (Oncorhynchus mykiss)
	EC50/48h	1.8 mg/l (Daphnia magna)
	ErC50/72h	11 mg/l (Selenastrum capricornutum)
16096-31-4 1,6-hexene-diglycidylether		
	LC50/96h	30 mg/l (Leucidus idus)
	EC50/48h	47 mg/l (Daphnia magna)
7631-86-9 silicon dioxide, chemically prepared		
	IC50/72h	440 mg/l (Selenastrum capricornutum)
	EC50/24h	>10000 mg/l (Daphnia magna)
	LC50/96h	>5000 mg/l (Danio rerio)

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		5000 mg/l (Brachydanio rerio)
	EC50/48h	7600 mg/l (Ceriodaphnia dubia)
		120 mg/l (Selenastrum capricornutum)
	NOEC	60 mg/l (Selenastrum capricornutum)
Reaction mass of ethylbenzene and xylene		
	EC50/72h	2.2 mg/l (Selenastrum capricornutum)
	LC50/96h	2.6 mg/l (Oncorhynchus mykiss)
	NOEC	16 mg/l (BEL)
Hydrophobes Siliziumdioxid, synthetisch, amorph		
Sensitisation	EL50	10000 mg/l (Daphnien)
	LC50/96h	>10000 mg/l (Brachydanio rerio)

· **Persistence and degradability** No further relevant information available.
· **Behaviour in environmental systems:**
· **Bioaccumulative potential** No further relevant information available.
· **Mobility in soil** No further relevant information available.
· **Additional ecological information:**
· **General notes:** Do not allow product to reach ground water, water bodies or sewage system.
Danger to drinking water if even small quantities leak into soil.
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**
· **Recommendation** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**
· **Recommendation:** Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

14 Transport information

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

· **UN proper shipping name**
· **ADR, IATA** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxide derivates)

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· **IMDG**	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxide derivates), MARINE POLLUTANT
· **Transport hazard class(es)**	
· **ADR**	
· **Class**	9 (M6) Miscellaneous dangerous substances and articles.
· **Label**	9
· **IMDG, IATA**	
· **Class**	9 Miscellaneous dangerous substances and articles.
· **Label**	9
· **Packing group**	
· **ADR, IMDG, IATA**	III
· **Environmental hazards:**	Product contains environmentally hazardous substances: epoxide derivates
· **Marine pollutant:**	no Yes Symbol (fish and tree)
· **Special marking (ADR):**	Symbol (fish and tree)
· **Special marking (IATA):**	Symbol (fish and tree)
· **Special precautions for user**	Warning: Miscellaneous dangerous substances and articles.
· **Kemler Number:**	90
· **EMS Number:**	F-A,S-F
· **Stowage Category**	A
· **Transport in bulk according to Annex II of Marpol and the IBC Code**	Not applicable.
· **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**	(-)
· **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

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· **UN "Model Regulation":** UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXIDE DERIVATES), 9, III

15 Regulatory information

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

· **Directive 2012/18/EU**
· **Named dangerous substances - ANNEX I** None of the ingredients is listed.
· **Seveso category** E2 Hazardous to the Aquatic Environment
· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t
· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing data specification sheet:** Environment protection department.
· **Contact:**
· **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
ADR: Accord relatif au transport international 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
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)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 3: Flammable liquids – Category 3
Acute Tox. 5: Acute toxicity – Category 5
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1

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Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
Skin Sens. 1: Skin sensitisation – Category 1
Carc. 2: Carcinogenicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Asp. Tox. 1: Aspiration hazard – Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Acute 2: Hazardous to the aquatic environment - acute aquatic hazard – Category 2
Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard – Category 3
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3