Safety Data Sheet
acc. to OSHA HCS

Printing date 04/07/2022 Reviewed on 04/07/2022

1 Identification

· **Product identifier**

· **Trade name: Mipa EP-Hardener HB 2.1**
· **Application of the substance / the mixture** Hardening agent/ Curing agent

· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**

MIPA SE
Am Oberen Moos 1
D-84051 Essenbach
Tel.: +49(0)8703-922-0
Fax.: +49(0)8703-922-100
e-mail: sdb-registratur@mipa-paints.com
www.mipa-paints.com

Fleetwood Products Inc.
13 American Way Suite 15
USA - NJ 08884 Spotswood
Tel.: +1 7324169590
e.mail: fleet089@hotmail.com

· **Emergency telephone number:**
International: 011 49(0)700 24112112 (MIP)
US: +1 872 5888271 (MIP)
US Emergency Telephone Number (for transportation incidents only): 1-800-535-5053 (Infotrac)

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2 Hazard(s) identification

· **Classification of the substance or mixture**

GHS02 Flame

Flammable Liquids 3 H226 Flammable liquid and vapor.

GHS05 Corrosion

Eye Damage 1 H318 Causes serious eye damage.

GHS07

Skin Irritation 2 H315 Causes skin irritation.
Sensitization - Skin 1 H317 May cause an allergic skin reaction.

· **Label elements**
· **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
· **Hazard pictograms**

GHS02 GHS05 GHS07

· **Signal word** Danger

· **Hazard-determining components of labeling:**
4-chloro-alpha,alpha,alpha-trifluorotoluene
Butan-1-ol
2,4,6-tris(dimethylaminomethyl)phenol
· **Hazard statements**
H226 Flammable liquid and vapor.
H315 Causes skin irritation.
H318 Causes serious eye damage.

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H317 May cause an allergic skin reaction.

· **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a poison center/doctor.

P321 Specific treatment (see on this label).

P362+P364 Take off contaminated clothing and wash it before reuse.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**

Health = 3
Fire = 3
Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

Health = *3
Fire = 3
Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

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3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

98-56-6	4-chloro-alpha,alpha,alpha-trifluorotoluene	25-50%
1330-20-7	Xylene	5-<10%
71-36-3	Butan-1-ol	≥2.5-<3%
90-72-2	2,4,6-tris(dimethylaminomethyl)phenol	≥1-<2.5%
14808-60-7	Quartz (SiO2)	<2.5%
107-15-3	ethylenediamine	≥0.1-<1%

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4 First-aid measures

· **Description of first aid measures**

· **General information:** Immediately remove any clothing soiled by the product.

· **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 rinse with water.

· **After eye contact:**

Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:** If symptoms persist consult doctor.

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· **Information for doctor:**
· **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

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5 Fire-fighting measures

· **Extinguishing media**
· **Suitable extinguishing agents:**
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· **For safety reasons unsuitable extinguishing agents:** Water with full jet
· **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**
Wear protective equipment. Keep unprotected persons away.
· **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
· **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
· **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.
· **Protective Action Criteria for Chemicals**

· **PAC-1:**		
1330-20-7	Xylene	130 ppm
71-36-3	Butan-1-ol	60 ppm
90-72-2	2,4,6-tris(dimethylaminomethyl)phenol	6.5 mg/m³
14808-60-7	Quartz (SiO2)	0.075 mg/m³
123-86-4	n-Butyl acetate	5 ppm
78-83-1	Isobutanol	150 ppm
112945-52-5	Silicon dioxide	18 mg/m³
107-15-3	ethylenediamine	0.88 ppm

· **PAC-2:**		
1330-20-7	Xylene	920* ppm
71-36-3	Butan-1-ol	800 ppm
90-72-2	2,4,6-tris(dimethylaminomethyl)phenol	72 mg/m³
14808-60-7	Quartz (SiO2)	33 mg/m³
123-86-4	n-Butyl acetate	200 ppm
78-83-1	Isobutanol	1,300 ppm
112945-52-5	Silicon dioxide	100 mg/m³
107-15-3	ethylenediamine	9.7 ppm

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· **PAC-3:**		
1330-20-7	Xylene	2500* ppm
71-36-3	Butan-1-ol	8000** ppm
90-72-2	2,4,6-tris(dimethylaminomethyl)phenol	430 mg/m³
14808-60-7	Quartz (SiO2)	200 mg/m³
123-86-4	n-Butyl acetate	3000* ppm
78-83-1	Isobutanol	8000* ppm
112945-52-5	Silicon dioxide	630 mg/m³
107-15-3	ethylenediamine	20 ppm

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7 Handling and storage

· **Handling:**
· **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
· **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.

· **Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:** No special requirements.
· **Information about storage in one common storage facility:** Store away from foodstuffs.
· **Further information about storage conditions:** Keep receptacle tightly sealed.
· **Storage class:** 3
· **Specific end use(s)** No further relevant information available.

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8 Exposure controls/personal protection

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

· **Control parameters**
· **Components with limit values that require monitoring at the workplace:**
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

1330-20-7 Xylene	
PEL	Long-term value: 435 mg/m³, 100 ppm
REL	Short-term value: 655 mg/m³, 150 ppm Long-term value: 435 mg/m³, 100 ppm
TLV	Short-term value: (150) ppm Long-term value: (100) NIC-20 ppm BEI, A4
71-36-3 Butan-1-ol	
PEL	Long-term value: 300 mg/m³, 100 ppm
REL	Ceiling limit value: 150 mg/m³, 50 ppm Skin
TLV	Long-term value: 20 ppm

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14808-60-7 Quartz (SiO2)	
PEL	Long-term value: 0.05* mg/m³ *resp. dust; 30mg/m3/%SiO2+2
REL	Long-term value: 0.05* mg/m³ *respirable dust; See Pocket Guide App. A
TLV	Long-term value: 0.025* mg/m³ *respirable particulate matter, A2
107-15-3 ethylenediamine	
PEL	Long-term value: 25 mg/m³, 10 ppm
REL	Long-term value: 25 mg/m³, 10 ppm
TLV	Long-term value: 10 ppm Skin, A4

· **Ingredients with biological limit values:**

1330-20-7 Xylene	
BEI	1.5 g/g creatinine Medium: urine Time: end of shift Parameter: Methylhippuric acids

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

· **Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.
· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
· **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.
· **Breakthrough 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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· **Eye protection:**

Tightly sealed goggles

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9 Physical and chemical properties

· **Information on basic physical and chemical properties**	
· **General Information**	
· **Appearance:**	
Form:	Fluid
Color:	According to product specification
· **Odor:**	Characteristic
· **Odor threshold:**	Not determined.
· **pH-value:**	Not determined.
· **Change in condition**	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	139 °C (282.2 °F)
· **Flash point:**	33 °C (91.4 °F) (DIN EN ISO 1523:2002)
· **Flammability (solid, gaseous):**	Not applicable.
· **Ignition temperature:**	500 °C (932 °F) (DIN 51794)
· **Decomposition temperature:**	Not determined.
· **Auto igniting:**	Product is not selfigniting.
· **Danger of explosion:**	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· **Explosion limits:**	
Lower:	Not determined.
Upper:	Not determined.
· **Vapor pressure at 20 °C (68 °F):**	6.7-8.2 hPa (5-6.2 mm Hg)
· **Density at 20 °C (68 °F):**	1.358 g/cm³ (11.333 lbs/gal) (DIN EN ISO 2811-1)
· **Relative density**	Not determined.
· **Vapor 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.
· **Viscosity:**	
Dynamic:	Not determined.
Kinematic at 20 °C (68 °F):	180 s (DIN 53211/4)
· **Solvent content:**	
VOC content:	13.55 % 264 g/l / 2.2 lb/gal
Solids content (weight-%):	56.5 %

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· **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:** Carbon monoxide

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11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:**
· **Primary irritant effect:**
· **on the skin:** No irritant effect.
· **on the eye:** Strong irritant with the danger of severe eye injury.
· **Sensitization:** Sensitization possible through skin contact.
· **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**		
98-56-6	4-chloro-alpha,alpha,alpha-trifluorotoluene	2B
14807-96-6	Talc	3
1330-20-7	Xylene	3
14808-60-7	Quartz (SiO2)	1

· **NTP (National Toxicology Program)**		
14808-60-7	Quartz (SiO2)	K

· **OSHA-Ca (Occupational Safety & Health Administration)**
None of the ingredients is listed.

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12 Ecological information

· **Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **Persistence and degradability** No further relevant information available.
· **Behavior in environmental systems:**
· **Bioaccumulative potential** No further relevant information available.
· **Mobility in soil** No further relevant information available.
· **Additional ecological information:**
· **General notes:**
Water hazard class 2 (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Must not reach bodies of water or drainage ditch undiluted or unneutralized.

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Danger to drinking water if even small quantities leak into the ground.
· ***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:*** *Disposal must be made according to official regulations.*

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14 Transport information

· ***UN-Number***	
· ***DOT, ADR, IMDG, IATA***	*UN1263*
· ***UN proper shipping name***	
· ***DOT***	*Paint related material*
· ***ADR***	*UN1263 PAINT RELATED MATERIAL, ENVIRONMENTALLY HAZARDOUS*
· ***IMDG***	*PAINT RELATED MATERIAL (CHLOROBENZOTRIFLUORIDES), MARINE POLLUTANT*
· ***IATA***	*PAINT RELATED MATERIAL*
· ***Transport hazard class(es)***	
· ***DOT***	

· ***Class***	*3 Flammable liquids*
· ***Label***	*3*
· ***ADR***	

· ***Class***	*3 (F1) Flammable liquids*
· ***Label***	*3*
· ***IMDG***	

· ***Class***	*3 Flammable liquids*

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· **Label**	3
· **IATA**	
	
· **Class**	3 Flammable liquids
· **Label**	3
· **Packing group**	
· **DOT, ADR, IMDG, IATA**	III
· **Environmental hazards:**	Product contains environmentally hazardous substances: 4-chloro-alpha,alpha,alpha-trifluorotoluene
· **Marine pollutant:**	Yes (DOT) Symbol (fish and tree)
· **Special marking (ADR):**	Symbol (fish and tree)
· **Special precautions for user**	Warning: Flammable liquids
· **Hazard identification number (Kemler code):**	30
· **EMS Number:**	F-E,S-E
· **Stowage Category**	A
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **Transport/Additional information:**	
· **DOT**	
· **Remarks:**	Special marking with the symbol (fish and tree).
· **ADR**	
· **Limited quantities (LQ)**	5L
· **IMDG**	
· **Limited quantities (LQ)**	5L
· **UN "Model Regulation":**	UN 1263 PAINT RELATED MATERIAL, 3, III, ENVIRONMENTALLY HAZARDOUS

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15 Regulatory information

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

· **Section 355 (extremely hazardous substances):**	
107-15-3	ethylenediamine

· **Section 313 (Specific toxic chemical listings):**	
1330-20-7	Xylene
71-36-3	Butan-1-ol

· **Hazardous Air Pollutants**	
1330-20-7	Xylene

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· **Proposition 65**

· **Chemicals known to cause cancer:**	
98-56-6	4-chloro-alpha,alpha,alpha-trifluorotoluene
14808-60-7	Quartz (SiO2)

· **Chemicals known to cause reproductive toxicity for females:**
None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**
None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**
None of the ingredients is listed.

· **Cancerogenity categories**

· **EPA (Environmental Protection Agency)**		
1330-20-7	Xylene	I
71-36-3	Butan-1-ol	D
107-15-3	ethylenediamine	D

· **TLV (Threshold Limit Value)**			
14807-96-6	Talc	A4	10-25%
1330-20-7	Xylene	A4	5-<10%
14808-60-7	Quartz (SiO2)	A2	<2.5%
107-15-3	ethylenediamine	A4	≥0.1-<1%

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**	
14808-60-7	Quartz (SiO2)

· **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
· **Hazard pictograms**

GHS02 GHS05 GHS07

· **Signal word** Danger

· **Hazard-determining components of labeling:**
4-chloro-alpha,alpha,alpha-trifluorotoluene
Butan-1-ol
2,4,6-tris(dimethylaminomethyl)phenol
· **Hazard statements**
H226 Flammable liquid and vapor.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.
· **Precautionary statements**
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a poison center/doctor.
P321 Specific treatment (see on this label).
P362+P364 Take off contaminated clothing and wash it before reuse.

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· ***National regulations:***
· ***Additional classification according to Decree on Hazardous Materials:***

Class	Share in %
I	<1
NK	25-50

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

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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.

· ***Contact:***
· ***Date of preparation / last revision*** *04/07/2022 / 1*
· ***Abbreviations and acronyms:***
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
DOT: US Department of Transportation
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)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
BEI: Biological Exposure Limit
Flammable Liquids 3: Flammable liquids – Category 3
Skin Irritation 2: Skin corrosion/irritation – Category 2
Eye Damage 1: Serious eye damage/eye irritation – Category 1
Sensitization - Skin 1: Skin sensitisation – Category 1
· **** Data compared to the previous version altered.***