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

· **1.1 Product identifier**

· **Trade name: Mipa 2K-HS-Express-Klarlack CX 6**
· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
· **Application of the substance / the mixture** Clear coating material, Varnish

· **1.3 Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
MIPA SE
Am Oberen Moos 1
D-84051 Essenbach
Tel.: +49 8703 92 20
Fax.: +49 8703 92 21 00
e-mail: sdb-registratur@mipa-paints.com
www.mipa-paints.com
· **1.4 Emergency telephone number:** International emergency number: +49(0)700 24112112 (MIP)

*
SECTION 2: Hazards identification

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


GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.


GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.


GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.
STOT SE 3 H336 May cause drowsiness or dizziness.

· **2.2 Label elements**
· **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the GB CLP regulation.
· **Hazard pictograms**


GHS02 GHS07 GHS09

· **Signal word** Warning

· **Hazard-determining components of labelling:**
n-Butyl acetate
2-Methoxy-1-methylethyl acetate
Reaction mass of pentamethyl-piperidylsebacate
Pentaerythritol tetrakis(3-mercaptopropionate)

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· ***Hazard statements***
H226 Flammable liquid and vapour.
H317 May cause an allergic skin reaction.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.
· ***Precautionary statements***
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER/doctor if you feel unwell.
· ***Additional information:***
EUH066 Repeated exposure may cause skin dryness or cracking.
· ***2.3 Other hazards***
· ***Results of PBT and vPvB assessment***
· ***PBT:*** *Not applicable*
· ***vPvB:*** *Not applicable*

*
SECTION 3: Composition/information on ingredients

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

· ***Dangerous components:***		
CAS: 123-86-4 *EINECS: 204-658-1* *Reg.nr.: 01-2119485493-29*	*n-Butyl acetate* *Flam. Liq. 3, H226; STOT SE 3, H336, EUH066*	*25-50%*
CAS: 763-69-9 *EINECS: 212-112-9* *Reg.nr.: 01-2119463267-34*	*Ethyl 3-ethoxypropionate* *Flam. Liq. 3, H226, EUH066*	*2.5-<10%*
CAS: 110-12-3 *EINECS: 203-737-8* *Reg.nr.: 01-2119472300-51*	*5-Methylhexan-2-one* *Flam. Liq. 3, H226; Repr. 2, H361; Acute Tox. 4, H332*	*≥2.5-<3%*
CAS: 108-65-6 *EINECS: 203-603-9* *Reg.nr.: 01-2119475791-29*	*2-Methoxy-1-methylethyl acetate* *Flam. Liq. 3, H226; STOT SE 3, H336*	*2.5-<10%*
CAS: 1065336-91-5 *EC number: 915-687-0* *Reg.nr.: 01-2119491304-40*	*Reaction mass of pentamethyl-piperidylsebacate* *Repr. 2, H361f; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Sens. 1A, H317*	*≥0.25-<1%*
CAS: 77-99-6 *EINECS: 201-074-9*	*1,1,1-Trimethylolpropane* *Repr. 2, H361fd*	*<1%*
CAS: 7575-23-7 *EINECS: 231-472-8* *Reg.nr.: 01-2119486981-23*	*Pentaerythritol tetrakis(3-mercaptopropionate)* *Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=10); Acute Tox. 4, H302; Skin Sens. 1A, H317*	*≥0.25-<1%*
CAS: 77-58-7 *EINECS: 201-039-8* *Reg.nr.: 01-2119496068-27*	*Dibutyltin dilaurate* *Muta. 2, H341; Repr. 1B, H360FD; STOT SE 1, H370; STOT RE 1, H372; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Eye Irrit. 2, H319; Skin Sens. 1, H317*	*≥0.25-<0.3%*

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

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SECTION 5: Firefighting measures

· **5.1 Extinguishing media**
· **Suitable extinguishing agents:**
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· **For safety reasons unsuitable extinguishing agents:** Water with full jet
· **5.2 Special hazards arising from the substance or mixture**
No further relevant information available.
· **5.3 Advice for firefighters**
· **Protective equipment:** No special measures required.

*
SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
· **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 section 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.
See Section 13 for disposal information.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
· **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.

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Protect against electrostatic charges.

· **7.2 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 container tightly sealed.
· **Storage class:** 3
· **7.3 Specific end use(s)** No further relevant information available.

*

SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**	
123-86-4 n-Butyl acetate	
WEL	Short-term value: 966 mg/m³, 200 ppm Long-term value: 724 mg/m³, 150 ppm
110-12-3 5-Methylhexan-2-one	
WEL	Short-term value: 475 mg/m³, 100 ppm Long-term value: 95 mg/m³, 20 ppm Sk
108-65-6 2-Methoxy-1-methylethyl acetate	
WEL	Short-term value: 548 mg/m³, 100 ppm Long-term value: 274 mg/m³, 50 ppm Sk
77-58-7 Dibutyltin dilaurate	
WEL	Short-term value: 0.2 mg/m³ Long-term value: 0.1 mg/m³ as Sn; Sk

· **DNELs**		
123-86-4 n-Butyl acetate		
Dermal	DNEL	6 mg/kg (general population) 11 mg/kg (Arbeiter)
Inhalative	DNEL	300 mg/m³ (general population) 600 mg/m³ (Arbeiter)

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

· **8.2 Exposure controls**
· **Appropriate engineering controls** No further data; see section 7.
· **Individual protection measures, such as personal protective equipment**
· **General protective and hygienic measures:**
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
· **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.

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· **Hand protection**
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation



Protective gloves (EN 374)

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.

· **Eye/face protection**



Tightly sealed goggles

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SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**	
· **General Information**	
· **Physical state**	Liquid
· **Colour:**	According to product specification
· **Odour:**	Characteristic
· **Odour threshold:**	Not determined
· **Melting point/freezing point:**	Undetermined
· **Boiling point or initial boiling point and boiling range**	124-128 °C (123-86-4 n-Butyl acetate)
· **Flammability**	Flammable.
· **Lower and upper explosion limit**	
· **Lower:**	1.2 Vol % (123-86-4 n-Butyl acetate)
· **Upper:**	8.5 Vol % (123-86-4 n-Butyl acetate)
· **Flash point:**	27 °C (DIN EN ISO 1523:2002, 123-86-4 n-Butyl acetate)
· **Auto-ignition temperature:**	390 °C (DIN 51794, 123-86-4 n-Butyl acetate)
· **Decomposition temperature:**	Not determined
· **pH**	Not determined
· **Viscosity:**	
· **Kinematic viscosity at 20 °C**	18-20 s (DIN 53211/4)
· **Dynamic:**	Not determined
· **Solubility**	
· **water:**	Not miscible or difficult to mix.
· **Partition coefficient n-octanol/water (log value)**	Not determined
· **Vapour pressure at 20 °C:**	10.7 hPa (123-86-4 n-Butyl acetate)
· **Vapour pressure at 50 °C:**	55 hPa
· **Density and/or relative density**	
· **Density at 20 °C:**	0.999 g/cm³ (DIN EN ISO 2811-1)

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· **Relative density**	Not determined
· **Vapour density**	Not determined
· **9.2 Other information**	
· **Appearance:**	
· **Form:**	Fluid
· **Important information on protection of health and environment, and on safety.**	
· **Ignition temperature:**	Product is not selfigniting.
· **Explosive properties:**	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· **Solvent content:**	
· **VOC (EC)**	43.47 %
· **Solids content (weight-%):**	56.5 %
· **Change in condition**	
· **Evaporation rate**	Not determined
· **Information with regard to physical hazard classes**	
· **Explosives**	Void
· **Flammable gases**	Void
· **Aerosols**	Void
· **Oxidising gases**	Void
· **Gases under pressure**	Void
· **Flammable liquids**	Flammable liquid and vapour.
· **Flammable solids**	Void
· **Self-reactive substances and mixtures**	Void
· **Pyrophoric liquids**	Void
· **Pyrophoric solids**	Void
· **Self-heating substances and mixtures**	Void
· **Substances and mixtures, which emit flammable gases in contact with water**	Void
· **Oxidising liquids**	Void
· **Oxidising solids**	Void
· **Organic peroxides**	Void
· **Corrosive to metals**	Void
· **Desensitised explosives**	Void

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** No dangerous reactions known.
· **10.4 Conditions to avoid** No further relevant information available.
· **10.5 Incompatible materials:** No further relevant information available.
· **10.6 Hazardous decomposition products:** Carbon monoxide

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SECTION 11: Toxicological information

· **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
· **Acute toxicity** Based on available data, the classification criteria are not met.

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· **LD/LC50 values relevant for classification:**

123-86-4 n-Butyl acetate		
Oral	LD50	13,100 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rabbit)
763-69-9 Ethyl 3-ethoxypropionate		
Oral	LD50	5,137 mg/kg (rat)
Dermal	LD50	4,073 mg/kg (rat)
110-12-3 5-Methylhexan-2-one		
Oral	LD50	3,200 mg/kg (rat)
Dermal	LD50	10,000 mg/kg (rabbit)
108-65-6 2-Methoxy-1-methylethyl acetate		
Oral	LD50	8,532 mg/kg (rat)
77-99-6 1,1,1-Trimethylolpropane		
Oral	LD50	14,100 mg/kg (rat)
7575-23-7 Pentaerythritol tetrakis(3-mercaptopropionate)		
Oral	LD50	1,000-2,000 mg/kg (rat)

· **Respiratory or skin sensitisation** May cause an allergic skin reaction.
· **STOT-single exposure** May cause drowsiness or dizziness.
· **11.2 Information on other hazards**

· **Endocrine disrupting properties**
None of the ingredients is listed.

*
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.
· **12.5 Results of PBT and vPvB assessment**
· **PBT:** Not applicable
· **vPvB:** Not applicable
· **12.6 Endocrine disrupting properties**
The product does not contain substances with endocrine disrupting properties.
· **12.7 Other adverse effects**
· **Remark:** Toxic for fish
· **Additional ecological information:**
· **General notes:**
Water hazard class 3 (German Regulation) : 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.
Toxic for aquatic organisms

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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.

· **Uncleaned packaging:**
· **Recommendation:** Disposal must be made according to official regulations.

*

SECTION 14: Transport information

· **14.1 UN number or ID number**	
· **ADR/RID/ADN, IMDG, IATA**	UN1263
· **14.2 UN proper shipping name**	
· **ADR/RID/ADN**	UN1263 PAINT, ENVIRONMENTALLY HAZARDOUS
· **IMDG**	PAINT (Polythiols), MARINE POLLUTANT
· **IATA**	PAINT
· **14.3 Transport hazard class(es)**	
· **ADR/RID/ADN**	
· **Class**	3 (F1) Flammable liquids.
· **Label**	3
· **IMDG**	
· **Class**	3 Flammable liquids.
· **Label**	3
· **IATA**	
· **Class**	3 Flammable liquids.
· **Label**	3
· **14.4 Packing group**	
· **ADR/RID/ADN, IMDG, IATA**	III
· **14.5 Environmental hazards:**	Product contains environmentally hazardous substances:
· **Marine pollutant:**	Symbol (fish and tree)
· **Special marking (ADR/RID/ADN):**	Symbol (fish and tree)
· **14.6 Special precautions for user**	Warning: Flammable liquids.
· **Hazard identification number (Kemler code):**	30

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· **EMS Number:**	F-E,S-E
· **Stowage Category**	A
· **14.7 Maritime transport in bulk according to IMO instruments**	Not applicable
· **Transport/Additional information:**	
· **ADR/RID/ADN**	
· **Limited quantities (LQ)**	5L
· **Transport category**	3
· **Tunnel restriction code**	D/E
· **IMDG**	
· **Limited quantities (LQ)**	5L
· **UN "Model Regulation":**	UN 1263 PAINT, 3, III, ENVIRONMENTALLY HAZARDOUS

*

SECTION 15: Regulatory information

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

· **Regulated explosives precursors**
None of the ingredients is listed.

· **Regulated poisons**
None of the ingredients is listed.

· **Reportable explosives precursors**
None of the ingredients is listed.

· **Reportable poisons**
None of the ingredients is listed.

· **Directive 2012/18/EU**
· **Named dangerous substances - ANNEX I** None of the ingredients is listed.
· **Seveso category**
E2 Hazardous to the Aquatic Environment
P5c FLAMMABLE LIQUIDS
· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t
· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t

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

Class	Share in %
I	2.5-<10
NK	25-50

· **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.

· **Relevant phrases**
H226 Flammable liquid and vapour.

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H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H336 May cause drowsiness or dizziness.
H341 Suspected of causing genetic defects.
H360FD May damage fertility. May damage the unborn child.
H361 Suspected of damaging fertility or the unborn child.
H361f Suspected of damaging fertility.
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
H370 Causes damage to organs.
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.
EUH066 Repeated exposure may cause skin dryness or cracking.

· **Classification according to Regulation (EC) No 1272/2008**
The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

· **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
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)
VOC: Volatile Organic Compounds (USA, EU)
DNEL: Derived No-Effect Level (UK 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. 4: Acute toxicity – Category 4
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Skin Sens. 1A: Skin sensitisation – Category 1A
Muta. 2: Germ cell mutagenicity – Category 2
Repr. 1B: Reproductive toxicity – Category 1B
Repr. 2: Reproductive toxicity – Category 2
Repr. 2: Reproductive toxicity – Category 2
Repr. 2: Reproductive toxicity – Category 2
STOT SE 1: Specific target organ toxicity (single exposure) – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
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 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

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