

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

- **1.1 Product identifier**
- **Trade name:** 2K-HS-Express-Klarlack CX 4
- **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(0)8703-922-0  
Fax.: +49(0)8703-922-100  
e-mail: [sdb-registratur@mipa-paints.com](mailto:sdb-registratur@mipa-paints.com)  
[www.mipa-paints.com](http://www.mipa-paints.com)  
not available
- **1.4 Emergency telephone 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 CLP regulation.
- **Hazard pictograms**



GHS02



GHS07



GHS09

- **Signal word** Warning
- **Hazard-determining components of labelling:**  
n-Butyl acetate  
Reaction mass of pentamethyl-piperidyl sebacate  
Pentaerythritol tetrakis(3-mercaptopropionate)

(Contd. on page 2)

**Trade name: 2K-HS-Express-Klarlack CX 4**

(Contd. of page 1)

**· 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**

- P101 If medical advice is needed, have product container or label at hand.  
P102 Keep out of reach of children.  
P103 Read label before use.  
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.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**· 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 Chemical characterisation: 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	25-50%
CAS: 763-69-9 EINECS: 212-112-9 Reg.nr.: 01-2119463267-34	ethyl 3-ethoxypropionate Flam. Liq. 3, H226	2.5-<10%
CAS: 110-12-3 EINECS: 203-737-8 Reg.nr.: 01-2119472300-51	5-methylhexan-2-one Flam. Liq. 3, H226; Acute Tox. 4, H332	2.5-<10%
CAS: 108-65-6 EINECS: 203-603-9 Reg.nr.: 01-2119475791-29	2-Methoxy-1-methylethyl acetate Flam. Liq. 3, H226	2.5-<10%
EC number: 915-687-0 Reg.nr.: 01-2119491304-40	Reaction mass of pentamethyl-piperidyl sebacate Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Sens. 1A, H317	≥0.25-<1%
CAS: 7575-23-7 EINECS: 231-472-8 Reg.nr.: 01-2119486981-23	Pentaerythritol tetrakis(3-mercaptopropionate) Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Skin Sens. 1A, H317	≥0.25-<1%

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

GB

(Contd. on page 3)

**Trade name: 2K-HS-Express-Klarlack CX 4**

(Contd. of page 2)

#### **SECTION 4: First aid measures**

- **4.1 Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**  
Immediately wash with water and soap and rinse thoroughly.  
Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.
- **Information for doctor:**

#### **SECTION 5: Firefighting measures**

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **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).  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents
- **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.  
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

(Contd. on page 4)

**Trade name: 2K-HS-Express-Klarlack CX 4**

(Contd. of page 3)

· **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:**

#### **123-86-4 n-Butyl acetate**

WEL	Short-term value: 966 mg/m <sup>3</sup> , 200 ppm
	Long-term value: 724 mg/m <sup>3</sup> , 150 ppm

#### **110-12-3 5-methylhexan-2-one**

WEL	Short-term value: 475 mg/m <sup>3</sup> , 100 ppm
	Long-term value: 95 mg/m <sup>3</sup> , 20 ppm
Sk	

#### **108-65-6 2-Methoxy-1-methylethyl acetate**

WEL	Short-term value: 548 mg/m <sup>3</sup> , 100 ppm
	Long-term value: 274 mg/m <sup>3</sup> , 50 ppm
Sk	

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

### · 8.2 Exposure controls

· **Personal protective equipment:**

· **General protective and hygienic measures:** 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.

· **Protection of hands:**

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

· **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 through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

GB

(Contd. on page 5)

**Trade name: 2K-HS-Express-Klarlack CX 4**

(Contd. of page 4)

## SECTION 9: Physical and chemical properties

### · 9.1 Information on basic physical and chemical properties

#### · General Information

#### · Appearance:

Form: Fluid  
Colour: According to product specification

· Odour: Characteristic

· Odour threshold: Not determined.

· pH-value: Not determined.

#### · Change in condition

Melting point/freezing point: Undetermined.  
Initial boiling point and boiling range: 36 °C

· Flash point: 27 °C (DIN EN ISO 1523:2002)

· Flammability (solid, gas): Not applicable.

· Ignition temperature: 370 °C (DIN 51794)

· Decomposition temperature: Not determined.

· Auto-ignition temperature: Product is not selfigniting.

· Explosive properties: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

#### · Explosion limits:

Lower: 1.2 Vol %  
Upper: 7.5 Vol %

· Vapour pressure at 20 °C: 10.7 hPa

· Density at 20 °C: 1.002 g/cm<sup>3</sup> (DIN EN ISO 2811-1)

· 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.

#### · Viscosity:

Dynamic: Not determined.  
Kinematic at 20 °C: 20 s (DIN 53211/4)

#### · Solvent content:

VOC (EC) 41.91 %

Solids content (weight-%): 58.1 %

· 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: No dangerous reactions known.

· 10.4 Conditions to avoid: No further relevant information available.

· 10.5 Incompatible materials: No further relevant information available.

(Contd. on page 6)

**Trade name: 2K-HS-Express-Klarlack CX 4**

(Contd. of page 5)

· **10.6 Hazardous decomposition products:** Carbon monoxide

## SECTION 11: Toxicological information

### · 11.1 Information on toxicological effects

· **Acute toxicity** Based on available data, the classification criteria are not met.

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

**7575-23-7 Pentaerythritol tetrakis(3-mercaptopropionate)**

Oral	LD50	1,000-2,000 mg/kg (rat)
------	------	-------------------------

### · 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

May cause an allergic skin reaction.

### · CMR effects (carcinogenicity, 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

May cause drowsiness or dizziness.

· **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.

### · Ecotoxicological effects:

· **Remark:** Harmful to 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.

Harmful to aquatic organisms

### · 12.5 Results of PBT and vPvB assessment

· **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.

### · European waste catalogue

08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances
-----------	---

(Contd. on page 7)



**Trade name: 2K-HS-Express-Klarlack CX 4**

(Contd. of page 6)

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

### SECTION 14: Transport information

· **14.1 UN-Number**  
· **ADR, IMDG, IATA** UN1263

· **14.2 UN proper shipping name**  
· **ADR** UN1263 PAINT, ENVIRONMENTALLY HAZARDOUS  
· **IMDG** PAINT (Polythiols), MARINE POLLUTANT  
· **IATA** PAINT

· **14.3 Transport hazard class(es)**

· **ADR**



· **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, IMDG, IATA** III

· **14.5 Environmental hazards:** Product contains environmentally hazardous substances:  
· **Marine pollutant:** bis-(1,2,2,6,6-penthamethyl-4-piperidyl)sebacate  
· **Special marking (ADR):** Symbol (fish and tree)  
· **Special marking (ADR):** Symbol (fish and tree)

· **14.6 Special precautions for user**

· **Danger code (Kemler):** Warning: Flammable liquids.  
· **EMS Number:** 30  
· **Stowage Category** F-E, S-E  
· **Stowage Category** A

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

(Contd. on page 8)

**Trade name: 2K-HS-Express-Klarlack CX 4**

(Contd. of page 7)

· **Transport/Additional information:**

· **ADR**

· **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**

· **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

· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

· **National regulations:**

Class	Share in %
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.

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.

H332 Harmful if inhaled.

H336 May cause drowsiness or dizziness.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

· **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 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)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

(Contd. on page 9)



**Trade name: 2K-HS-Express-Klarlack CX 4**

(Contd. of page 8)

*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*  
*Skin Sens. 1: Skin sensitisation – Category 1*  
*Skin Sens. 1A: Skin sensitisation – Category 1A*  
*STOT SE 3: Specific target organ toxicity (single exposure) – Category 3*  
*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.**

GB