

1 Identification of the substance or mixture and of the supplier

- **Product identifier**
- **Trade name:** *Mipa 2K-HS-Express-Härter HX 4*
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **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
- **Importer in New Zealand:**
RJP Performance Coatings
33 Ha Crescent, Wiri
Auckland 2104
Phone: 09 25000 91
Email: sales@mipa.nz
Web: www.mipa.nz
- **24HR Emergency Assistance in New Zealand:**
National Poison Control Centre: 0800 POISON [764 766]
- **Emergency telephone number:** *International emergency number: +49(0)700 24112112 (MIP)*

2 Hazards identification

- **Classification of the substance or mixture**



flame

Flam. Liq. 3 H226 *Flammable liquid and vapour.*



Acute Tox. 4 H332 *Harmful if inhaled.*
Skin Sens. 1 H317 *May cause an allergic skin reaction.*
STOT SE 3 H335-H336 *May cause respiratory irritation. May cause drowsiness or dizziness.*
Aquatic Chronic 3 H412 *Harmful 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**



GHS02 GHS07

- **Signal word** *Warning*

- **Hazard-determining components of labelling:**

Hexamethylene diisocyanate, oligomers
Aliphatic diisocyanate prepolymer
2-Butoxyethyl acetate
3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers

- **Hazard statements**

H226 *Flammable liquid and vapour.*
H332 *Harmful if inhaled.*
H317 *May cause an allergic skin reaction.*
H335-H336 *May cause respiratory irritation. May cause drowsiness or dizziness.*

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H412 Harmful 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.

Other hazards

Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition/Information on ingredients

Chemical characterisation: Mixtures

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

Dangerous components:

28182-81-2	Hexamethylene diisocyanate, oligomers ⚠ Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335	25-50%
30322-28-2	Aliphatic diisocyanate prepolymer ⚠ Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335	10-25%
123-86-4	n-Butyl acetate ⚠ Flam. Liq. 3, H226; ⚠ STOT SE 3, H336	<15%
108-65-6	2-Methoxy-1-methylethyl acetate ⚠ Flam. Liq. 3, H226; ⚠ STOT SE 3, H336	10-25%
112-07-2	2-Butoxyethyl acetate ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Flam. Liq. 4, H227	5-<10%
53880-05-0	3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers ⚠ Skin Sens. 1, H317; STOT SE 3, H335	2.5-<10%
64742-95-6	Hydrocarbons, C9, aromatics ⚠ Flam. Liq. 3, H226; ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Chronic 2, H411; ⚠ STOT SE 3, H335-H336; Acute Tox. 5, H303; Acute Tox. 5, H313	2.5-<5%

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

4 First aid measures

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.

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.

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- **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 Fire fighting measures

- **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
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **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.
- **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.
- **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.

7 Handling and storage

- **Handling:**
- **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.
- **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
- **Specific end use(s)** No further relevant information available.

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8 Exposure controls/personal protection

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

· **Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

123-86-4 n-Butyl acetate

WES (New Zealand) Short-term value: 950 mg/m³, 200 ppm
Long-term value: 713 mg/m³, 150 ppm

IOELV (EU) Short-term value: 723 mg/m³, 150 ppm
Long-term value: 241 mg/m³, 50 ppm

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

IOELV (EU) Short-term value: 550 mg/m³, 100 ppm
Long-term value: 275 mg/m³, 50 ppm
Skin

112-07-2 2-Butoxyethyl acetate

IOELV (EU) Short-term value: 333 mg/m³, 50 ppm
Long-term value: 133 mg/m³, 20 ppm
Skin

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

· **Exposure controls**

· **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.

· **Protection of hands:**

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 through 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

9 Physical and chemical properties

· **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: 124-128 °C

· **Flash point:**

27 °C (DIN EN ISO 1523:2002)

· **Flammability (solid, gas):**

Flammable.

· **Ignition temperature:**

280 °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:

10.8 Vol %

· **Vapour pressure at 20 °C:**

10.7 hPa

· **Density at 20 °C:**

1.057 g/cm³ (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:

17 s (DIN 53211/4)

· **Solvent content:**

VOC (EC)

38.39 %

Solids content (weight-%):

61.6 %

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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

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity**
- **Primary irritant effect:**
- **Skin corrosion/irritation** No irritant effect.
- **Serious eye damage/irritation** No irritating effect.
- **Respiratory or skin sensitisation** Sensitisation possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Harmful
Irritant

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **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.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) : slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Harmful to aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

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13 Disposal considerations

- **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.

14 Transport information

- | | |
|---|-------------------------------|
| · UN-Number | UN1263 |
| · NZS, IMDG, IATA | |
| · UN proper shipping name | UN1263 PAINT RELATED MATERIAL |
| · NZS | PAINT RELATED MATERIAL |
| · IMDG, IATA | |
| · Transport hazard class(es) | |
| · NZS | |
|  | |
| · Class | 3 (F1) Flammable liquids. |
| · Label | 3 |
| · IMDG, IATA | |
|  | |
| · Class | 3 Flammable liquids. |
| · Label | 3 |
| · Packing group | III |
| · NZS, IMDG, IATA | |
| · Environmental hazards: | Not applicable. |
| · 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 Marpol and the IBC Code | Not applicable. |
| · Transport/Additional information: | |
| · NZS | |
| · Limited quantities (LQ) | 5L |
| · Transport category | 3 |
| · Tunnel restriction code | D/E |
| · IMDG | |
| · Limited quantities (LQ) | 5L |

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· **UN "Model Regulation":**

UN 1263 PAINT RELATED MATERIAL, 3, III

15 Regulatory information

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

· **HSNO Approval numbers**

123-86-4	n-Butyl acetate	HSR001091
112-07-2	2-Butoxyethyl acetate	HSR001155

· **GHS label elements**

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

· **Hazard pictograms**



GHS02 GHS07

NEW ZEALAND:

Class 3.1C Flammable Liquid & Vapour
Class 6.1D Inhalation Hazard
Class 6.1E Respiratory Irritant
Class 6.5B Skin Allergic
Class 9.1C Aqua Toxic

· **Signal word** Warning

HSr002662 Surface Coatings & Colourants (Flammable)

· **Hazard-determining components of labelling:**

Hexamethylene diisocyanate, oligomers

Aliphatic diisocyanate prepolymer

2-Butoxyethyl acetate

3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers

· **Hazard statements**

H226 Flammable liquid and vapour.

H332 Harmful if inhaled.

H317 May cause an allergic skin reaction.

H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

H412 Harmful 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.

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **Seveso category** P5c FLAMMABLE LIQUIDS

· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t

· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t

· **National regulations:**

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

Class	Share in %
NK	25-50

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- **Other regulations, limitations and prohibitive regulations**
Surface Coatings and Colourants (Flammable) Group Standard 2006
HSNO Approval Number: The HSNO Approval Number for this Group Standard is HSR002662.
Refer also to the Site & Storage requirements document.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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.
H227 Combustible liquid.
H302 Harmful if swallowed.
H303 May be harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H313 May be harmful in contact with skin.
H317 May cause an allergic skin reaction.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.
- **Contact:**
- **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
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)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 3: Flammable liquids – Category 3
Flam. Liq. 4: Flammable liquids – Category 4
Acute Tox. 5: Acute toxicity – Category 5
Acute Tox. 4: Acute toxicity – Category 4
Skin Sens. 1: Skin sensitisation – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Asp. Tox. 1: Aspiration 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
- *** Data compared to the previous version altered.**