

1 Identification of the substance or mixture and of the supplier

- **Product identifier**
- **Trade name:** *Mipa 2K-Härter H 5*
- **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 8703 92 20
Fax.: +49 8703 92 21 00
e-mail: sdb-registratur@mipa-paints.com
www.mipa-paints.com
- **Importer in New Zealand:**
RJP Performance Coatings
33 Ha Crescent, Wiri, Auckland 2104 New Zealand
Phone: +64 9 25000 91
Fax: +64 9 25000 92
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. 2 H225 *Highly flammable liquid and vapour.*



health hazard

Repr. 1 H360 *May damage fertility or the unborn child.*



Eye Irrit. 2 H319 *Causes serious eye irritation.*

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



GHS08

- **Signal word** *Danger*

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

Hexamethylene diisocyanate, oligomers

n-Butyl acetate

dibutyltin dilaurate

Ethyl acetate

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Hazard statements

- H225 Highly flammable liquid and vapour.
- H319 Causes serious eye irritation.
- H317 May cause an allergic skin reaction.
- H360 May damage fertility or the unborn child.
- 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.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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:

123-86-4	n-Butyl acetate ⚠ Flam. Liq. 3, H226; ⚠ STOT SE 3, H336	50-100%
28182-81-2	Hexamethylene diisocyanate, oligomers ⚠ Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335	25-50%
141-78-6	Ethyl acetate ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	10-25%
77-58-7	dibutyltin dilaurate ⚠ Muta. 2, H341; Repr. 1, H360; STOT SE 1, H370; STOT RE 1, H372; ⚠ Skin Corr. 1C, H314; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Skin Sens. 1, H317	≥0.25-<0.3%
4083-64-1	4-isocyanatosulphonyltoluene ⚠ Resp. Sens. 1, H334; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	≥0.1-<1%

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

4 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.

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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

- **Suitable extinguishing agents:** 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.
- **Protective equipment:** No special measures required.

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 section 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**
Keep away from heat and direct sunlight.
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Keep respiratory protective device available.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
- **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 section 7.

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

123-86-4 n-Butyl acetate

WES (New Zealand)	Short-term value: 950 mg/m ³ , 200 ppm Long-term value: 713 mg/m ³ , 150 ppm
IOELV (EU)	Short-term value: 723 mg/m ³ , 150 ppm Long-term value: 241 mg/m ³ , 50 ppm

141-78-6 Ethyl acetate

WES (New Zealand)	Long-term value: 720 mg/m ³ , 200 ppm
IOELV (EU)	Short-term value: 1468 mg/m ³ , 400 ppm Long-term value: 734 mg/m ³ , 200 ppm

77-58-7 dibutyltin dilaurate

WES (New Zealand)	Short-term value: 0.2 mg/m ³ Long-term value: 0.1 mg/m ³ skin, as Sn
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4083-64-1 4-isocyanatosulphonyltoluene

WES (New Zealand)	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ as -NCO; vapours, mist, dust; dsen, rsen, skin, ifv
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· **Additional information:** The lists valid during the making were used as basis.

· **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.
Store protective clothing separately.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.

· **Respiratory protection:**

Filter A/P2 (EN 141, EN 143)



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**

Butyl rubber, BR

Recommended thickness of the material: ≥ 0.7 mm

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.

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· **Breakthrough time of glove material**

For the mixture of chemicals the penetration time has to be at least 60 minutes (Permeation according to EN 374 Part 3: Level 3).

· **Eye protection:**



Tightly sealed goggles

9 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:**

77-78 °C

· **Flash point:**

14 °C (DIN 53213)

· **Flammability (solid, gas):**

Highly flammable.

· **Auto-ignition temperature:**

370 °C (DIN 51794)

· **Decomposition temperature:**

Not determined.

· **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:**

11.5 Vol %

· **Vapour pressure at 20 °C:**

97 hPa

· **Vapour pressure at 50 °C:**

360 hPa

· **Density at 20 °C:**

0.964 g/cm³ (DIN 53217)

· **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:**

10-15 s (DIN 53211/4)

· **Solvent content:**

· **VOC (EC)**

65.50 %

· **Solids content (weight-%):**

34.5 %

· **Other information**

No further relevant information available.

10 Stability and reactivity

· **Reactivity** No further relevant information available.

· **Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

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- **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** Based on available data, the classification criteria are not met.

· **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)

- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Causes serious eye irritation.
- **Respiratory or skin sensitisation** May cause an allergic skin reaction.
- **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** May damage fertility or the unborn child.
- **STOT-single exposure** May cause respiratory irritation. 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.

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 2 (German Regulation) : hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
Harmful to aquatic organisms
- **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 together with household garbage. Do not allow product to reach sewage system.



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- **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	II
· NZS, IMDG, IATA	
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Warning: Flammable liquids.
· Hazard identification number (Kemler code):	33
· EMS Number:	F-E, S-E
· Stowage Category	B
· 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	2
· Tunnel restriction code	D/E
· IMDG	
· Limited quantities (LQ)	5L
· UN "Model Regulation":	UN 1263 PAINT RELATED MATERIAL, 3, II

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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
141-78-6	Ethyl acetate	HSR001041
77-58-7	dibutyltin dilaurate	HSR003610

· GHS label elements

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

· Hazard pictograms



GHS02 GHS07 GHS08

· Signal word Danger

· Hazard-determining components of labelling:

Hexamethylene diisocyanate, oligomers

n-Butyl acetate

dibutyltin dilaurate

Ethyl acetate

· Hazard statements

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H360 May damage fertility or the unborn child.

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.

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

· 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 %
I	<1
NK	50-100

NEW ZEALAND:

- 3.1B Flammable liquids
- 6.1E Specific target organ toxicity, single exposure; Respiratory tract irritation
- 6.4A Eye irritation
- 6.5B Sensitization, Skin
- 6.8A Reproductive toxicity
- 6.9B Specific target organ toxicity, single exposure; Narcotic effects
- 9.1C Hazardous to the aquatic environment, long-term hazard

HSR002662 Surface Coatings & Colourants (Flammable)

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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

- H225 Highly flammable liquid and vapour.
- H226 Flammable liquid and vapour.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H341 Suspected of causing genetic defects.
- H360 May damage fertility or 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.

· Contact:

· Abbreviations and acronyms:

- ICAO: International Civil Aviation Organisation
- RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
- 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)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Flam. Liq. 2: Flammable liquids – Category 2
- Flam. Liq. 3: Flammable liquids – Category 3
- Acute Tox. 4: Acute toxicity – Category 4
- Skin Corr. 1C: Skin corrosion/irritation – Category 1C
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
- Resp. Sens. 1: Respiratory sensitisation – Category 1
- Skin Sens. 1: Skin sensitisation – Category 1
- Muta. 2: Germ cell mutagenicity – Category 2
- Repr. 1: Reproductive toxicity – Category 1
- 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 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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