

**SAFETY DATA SHEET**  
2K MS Hardener

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Compilation date: 19/05/2020

**Section 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

**Product name:** 2K MS Hardener

**Code:** PLH1/\*\* (\*) Indicates tin size

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

**Use of substance / mixture:** Hardener for Coatings

**1.3. Details of the supplier of the safety data sheet**

**Company name:** Repair and Refinish Coatings Ltd

9 Bailey brook Business Park

Langley Mill

Nottingham, NG164BE

**Tel:** 03337721671

**Email:** [repairandrefinish@gmail.com](mailto:repairandrefinish@gmail.com)

**1.4. Emergency telephone number**

**Section 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Emergency tel:** 03337721671 (Office Hours Only)

**Classification under CLP:** Mixture

**Most important adverse effects:** Skin Irrit. 2, H315

Skin Sens. 1, H317

Acute Tox. 4, H332

STOT SE 3, H335 (Respiratory tract irritation)

**2.2. Label elements**

**Label elements:**

**Hazard statements:** H226: Flammable liquid and vapour.

H315 – Causes Skin Irritation

H317: May Cause an allergic reaction

H332: Harmful if inhaled

H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled

H336: May cause drowsiness or dizziness.

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### Hazard pictograms:



**Signal words:** Warning

**Precautionary statements:** P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261: Avoid breathing vapours.

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 .

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312: Call a POISON CENTRE or doctor if you feel unwell

**Storage:** P403 + P235 Store in a Well Ventilated Place Keep Cool

**Supplemental Label Elements:** EUH204 Contains isocyanates.May Produce Allergic reaction.

EUH208 Contains Hexamethylene Di-Isocyanate. May produce an allergic reaction

### 2.3. Other hazards

**Other hazards:** In use, may form flammable / explosive vapour-air mixture.

**PBT:** This product is not identified as a PBT/vPvB substance.

## Section 3: Composition/information on ingredients

### 3.2. Mixtures

REACH Registration Number	Chemical Name	% By wt.	CAS No.	EC No. (EINECS)	Index No.	Classification Regulation (EC) No.1272/2008 (CLP)
01-2119488216-32	Xylene (Mixture of Isomers)	>20-<40	1330-20-7	215-535-7	601-022-00-9	Acute Tox. 4, H312+H332 Flam. Liq. 3, H226 Skin Irrit. 2, H315
01-2119485493-29	N-Butyl Acetate	>20-<40	123-86-4	204-658-1		
01-2119485796-17	Hexane, 1,6-diisocyanato-, homopolymer	>30-<40	28182-81-2	500-060-2	N/A	Skin Sens. 1 H317
01-2119457571-37	hexamethylene diisocyanate	<0.3	822-06-0	212-485-8	615-011-00-1	Acute Tox. 4 (oral) Acute Tox. 1 (Inhalation - mist) Acute Tox. 3 (dermal) Skin Corr./Irrit. 2 Eye Dam./Irrit. 2 Resp. Sens. 1 Skin Sens. 1 STOT SE 3, H335
01-2119475791-29	2-methoxy-1-methylethyl acetate	>0.5-<10	108-65-6	203-603-9	607-195-00-7	Flam. Liq. 3 H226
01-2119489370-35	ethylbenzene	<1.0	100-41-4	202-849-4	601-023-00-4	Asp. Tox. 1 Flam. Liq. 2 Acute Tox. 4 (Inhalation - vapour) Skin Corr./Irrit. 2 Eye Dam./Irrit. 2 STOT SE 3 (irr. to respiratory

[cont...]

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						syst.) STOT RE 2 Aquatic Chronic 3 H319, H315, H332, H412, H225, H304, H373, H335

## Section 4: First aid measures

### 4.1. Description of first aid measures

**Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin.

Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Consult a doctor.

**Eye contact:** Immediately flood the eye with plenty of water for at least 15 minutes, holding the eye open. Remove any contact lenses and open eyes wide apart. Get medical attention if any discomfort continues

**Ingestion:** Wash out mouth with water. Do not induce vomiting. If conscious, give half a litre of water to drink immediately. Consult a doctor.

**Inhalation:** Remove from exposure, rest and keep warm. In severe cases, or if recovery is not rapid or complete, seek medical advice.

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### 4.2. Most important symptoms and effects, both acute and delayed

**Skin contact:** There may be irritation and redness at the site of contact. Defatting to the skin.

**Eye contact:** There may be irritation and redness. The eyes may water profusely.

**Ingestion:** There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

### 4.3. Indication of any immediate medical attention and special treatment needed

**Notes to Physician:** In case of inhalation of decomposition Products in a fire, symptoms may be delayed. The exposed person may need to be kept under surveillance for 48 hours.

**Immediate / special treatment:** Not applicable.

## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** Alcohol or polymer foam. Carbon dioxide. Dry chemical powder. Use water spray to cool containers.

### 5.2. Special hazards arising from the substance or mixture

**Exposure hazards:** Flammable. In combustion emits toxic fumes. Forms explosive air-vapour mixture.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

## Section 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions:** Use the correct personal protective clothing

### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding.

### 6.3. Methods and material for containment and cleaning up

**Clean-up procedures:** Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Do not use equipment in clean-up procedure which may produce sparks.

### 6.4. Reference to other sections

**Reference to other sections:** Refer to section 8 of SDS.

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## Section 7: Handling and storage

### 7.1. Precautions for safe handling

**Handling requirements:** Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area.

Do not handle in a confined space. Avoid the formation or spread of mists in the air.

Smoking is forbidden. Use non-sparking tools.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage conditions:** Store in a cool, well ventilated area. Keep container tightly closed. Keep away from sources of ignition. Prevent the build up of electrostatic charge in the immediate area.

Ensure lighting and electrical equipment are not a source of ignition.

**Suitable packaging:** Must only be kept in original packaging.

### 7.3. Specific end use(s)

## Section 8: Exposure controls/personal protection

### 8.1. Control parameters

**Specific end use(s):** No data available.

#### Workplace exposure limits:

100-41-4: ethylbenzene

TWA value 442 mg/m<sup>3</sup> ; 100 ppm (OEL (EU))  
indicative

STEL value 884 mg/m<sup>3</sup> ; 200 ppm (OEL (EU))  
indicative

Skin Designation (OEL (EU))

The substance can be absorbed through the skin.

108-65-6: 1-methoxy-2-propylacetate

TWA value 275 mg/m<sup>3</sup> ; 50 ppm (OEL (EU))  
indicative

STEL value 550 mg/m<sup>3</sup> ; 100 ppm (OEL (EU))  
indicative

Skin Designation (OEL (EU))

The substance can be absorbed through the skin.

1330-20-7: xylene

TWA value 221 mg/m<sup>3</sup> ; 50 ppm (OEL (EU))  
indicative

STEL value 442 mg/m<sup>3</sup> ; 100 ppm (OEL (EU))  
indicative

Skin Designation (OEL (EU))

The substance can be absorbed through the skin.

822-06-0: 1,6-hexamethylene diisocyanate

#### Respirable dust

### DNEL/PNEC Values

Ingredient name	exposure	Short term		Long term	
Xylene (mixture of isomers)	Oral	N/A	N/A	1.6mg/kg	N/A
	Dermal	N/A	N/A	108mg/kg	N/A
	Inhalation	N/A	N/A	14.8 mg/m <sup>3</sup>	N/A

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Ethylbenzene	Oral	N/A	N/A	1.6 mg/kg	N/A
	Dermal	N/A	N/A	N/A	N/A
	Inhalation	N/A	N/A	15mg/m3	N/A
2-methoxy-1-methylethyl acetate	Oral	N/A	N/A	1.67mg/kg	N/A
	Dermal	N/A	N/A	54.8mg/kg	N/A
	Inhalation	N/A	N/A	333 mg/m3	N/A
N-butyl actate	Oral			960mg/m3	
	Dermal			480mg/m3	
	Inhalation			859.7mg/m3	

### PNEC

Ingredient name	Environmental Sphere	PNEC Value
Xylene (mixture of isomers)	Fresh water	0.327 mg/L
	Marine water	0.327mg/L
	Fresh water sediment	12.46mg/L
	Marine water sediment	12.46mg/L
	Sewage treatment soil	6.58mg/L 2.31mg/L
Ethylbenzene	Fresh water	0.1mg/L
	Marine water	0.01mg/L
	Fresh water sediment	13.7mg/KG
	Marine water sediment	1.37mg/KG
	Sewage treatment soil	9.6mg/L 2.68mg/KG
2-methoxy-1-methylethyl acetate	Fresh water	0.635mg/l
	Marine water	0.0635mg/l
	Fresh water sediment	3.29mg/kg
	Marine water sediment	0.329mg/kg
	Sewage treatment soil	100mg/l 0.29mg/kg
N-butyl actate	Fresh water	0.18mg/l
	Marine water	0.018mg/l
	Fresh water sediment	0.981mg/kg
	Marine water sediment	0.0981mg/kg
	Sewage treatment soil	0.0903mg/kg
Hexamethylene Di Isocyanate	Fresh water	0.0774mg/l
	Marine water	0.00774mg/l
	Fresh water sediment	0.01334mg/kg
	Marine water sediment	8.42mg/l
	Sewage treatment soil	0.0026mg/kg

### 8.2. Exposure controls

**Engineering measures:** Ensure there is sufficient ventilation of the area. Ensure lighting and electrical equipment are not a source of ignition.

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**Respiratory protection:** If exposure levels are likely to be exceeded, use a full face mask fitted with an organic AXP3 filter for short term low level exposures. For long term or high level exposures, compressed airline breathing apparatus should be used.

**Hand protection:** Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. To protect hands from chemicals, gloves should comply with European Standard EN374. Butyl, nitrile or pvc coated gloves. Glove thickness >0.3 mm Breakthrough time of the glove material > 1 hour.

**Eye protection:** Safety goggles. Ensure eye bath is to hand.

**Skin protection:** Impermeable protective clothing.

### Section 9: Physical and chemical properties

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

**State:** Liquid

**Colour:** Colourless

**Odour:** Fruity

**Evaporation rate:** Slow

**Oxidising:** No data available.

**Part. coeff. n-octanol/water:** No data available.

**Vapour pressure:** 840Pa

**Viscosity:** Non-viscous

**Boiling point/range°C:** 136

**Flammability limits %: lower:** 1.7

**Flash point°C:** 24

**Autoflammability°C:** 315c

**Relative density:** 0.882

#### 9.2. Other information

**Other information:** No data available.

### Section 10: Stability and reactivity

#### 10.1. Reactivity

#### 10.2. Chemical stability

**Reactivity:** Stable under recommended transport or storage conditions.

**Chemical stability:** Stable under normal conditions. Stable at room temperature.

#### 10.3. Possibility of hazardous reactions

**Hazardous reactions:** Hazardous reactions will not occur under normal transport or storage conditions.

Decomposition may occur on exposure to conditions or materials listed below.

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### 10.4. Conditions to avoid

**Conditions to avoid:** Heat. Hot surfaces. Sources of ignition. Flames.

### 10.5. Incompatible materials

### 10.6. Hazardous decomposition products

**Materials to avoid:** Strong oxidising agents. Strong acids.

**Haz. decomp. products:** In combustion emits toxic fumes.

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

#### Relevant hazards for product:

Hazard	Route	Basis
STOT-single exposure	-	Hazardous: calculated

### Symptoms / routes of exposure

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and redness. The eyes may water profusely.

**Ingestion:** There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

## Section 12: Ecological information

### 12.1. Toxicity

### 12.2. Persistence and degradability

**Ecotoxicity values:** No data available.

**Persistence and degradability:** Biodegradable.

### 12.3. Bioaccumulative potential

### 12.4. Mobility in soil

**Bioaccumulative potential:** No bioaccumulation potential.

**Mobility:** Readily absorbed into soil.

### 12.5. Results of PBT and vPvB assessment

### 12.6. Other adverse effects

**PBT identification:** This product is not identified as a PBT/vPvB substance.

**Other adverse effects:** Negligible ecotoxicity.



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## Section 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal operations:** waste should be avoided or minimized when possible. Use the correct safety measures when disposing. Seek a certified company to collect waste

**Hazardous Codes:** HP3, HP4, HP5, HP6, HP13

## Section 14: Transport information

### 14.1. UN number

**UN number:** UN1263 **Name:** Paint Related Material

**Transport Hazard Class:**3

	ADR/RID	IMDG	ICAO
Un number	UN1263	UN1263	UN1263
UN Name	Paint related material	Paint related material	Paint related material
Transport class	3	3	3
Packing group	3	3	3
Special regulations	163,367,640E,650	163,223,944,955	
Tunnel Restriction Code	D/E		
EmS Codes		F-E,S-E	
Physico-chemical-properties	See section 9	See section9	See section 9
Limited quantities	5L	5L	
Transport in bulk according to annexII of MARPOL 73/78 and the IBC Code	N/A	N/A	N/A

## Section 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH) Annex XIV – List of substances subject to authorization.

### 15.2. Chemical Safety Assessment

**Chemical safety assessment:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

## Section 16: Other information

### Other information

**Other information:** This safety data sheet is prepared in accordance with Commission Regulation (EU) No 2015/830.

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N-BUTYL ACETATE

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