

SAFETY DATA SHEET
2K HS Hardener MMH2

Page: 1
Compilation date: 19/05/2020

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

1.1. Product identifier

Product name: 2K HS Hardener

Code: MMH2/** (*) 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

Unit 11 langley park,

Langley Mill

Nottingham, NG164BS

Tel: 01156461650

Email: repairandrefinish@gmail.com

1.4. Emergency telephone number

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Emergency tel: 01156461650 (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.

SAFETY DATA SHEET

2K HS Hardener MMH2

Page: 2

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...]

SAFETY DATA SHEET

2K HS Hardener MMH2

Page: 3

						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.

SAFETY DATA SHEET

2K HS Hardener MMH2

Page: 4

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.

[cont...]

SAFETY DATA SHEET

2K HS Hardener MMH2

Page: 5

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/m³ ; 100 ppm (OEL (EU))
indicative

STEL value 884 mg/m³ ; 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/m³ ; 50 ppm (OEL (EU))
indicative

STEL value 550 mg/m³ ; 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/m³ ; 50 ppm (OEL (EU))
indicative

STEL value 442 mg/m³ ; 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 ³	N/A

[cont...]

SAFETY DATA SHEET

2K HS Hardener MMH2

Page: 6

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.

[cont...]

SAFETY DATA SHEET

2K HS Hardener MMH2

Page: 7

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

VOC content: 572g/L

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.

[cont...]

SAFETY DATA SHEET
2K HS Hardener MMH2

Page: 8

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.

[cont...]

SAFETY DATA SHEET

2K HS Hardener MMH2

Page: 9

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.

[cont...]

SAFETY DATA SHEET

N-BUTYL ACETATE

Page: 8

Disclaimer: The above information is believed to be correct at the time of producing this Document. (see above dates) The Manufacturer and Seller does not accept any liability for any damaged caused by use of this product. Please contact the Manufacturer/supplier for any questions before using this product. This Document is a Guide only.