

SAFETY DATA SHEET

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

1.1 Product identifier

Product name : PU HARDENER FOR WATERBORNE LACQUER

Product code : AH1550/00

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

Material uses : Paint or paint related material.

: Industrial use only.

1.3 Details of the supplier of the safety data sheet

SHERWIN-WILLIAMS Italy S.r.l.

Via del Fifico, 12 - 40065 Pianoro (BO)

Italia - C.P. 18

Cod. Fisc. e Reg. Impr. Bo 08866930152

e-mail address of person responsible for this SDS : regulatory.SWI@sherwin.com

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : +353 1 809 2166

Supplier

Telephone number : +39 051 770511

Hours of operation : Emergency contact available 24 hours a day

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flam. Liq. 3, H226

Skin Sens. 1, H317

STOT SE 3, H335

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : Flammable liquid and vapour.
May cause an allergic skin reaction.
May cause respiratory irritation.

SECTION 2: Hazards identification

Precautionary statements

- Prevention** : Wear protective gloves. Wear protective clothing. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Response** : IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
- Storage** : Store locked up.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Hazardous ingredients** : Blocked Isocyanate Polymer
Homopolymer of HDI
Blocked Polyisocyanate
Isophorone Diisocyanate (max.)
- Supplemental label elements** : Contains isocyanates. May produce an allergic reaction. FOR INDUSTRIAL USE ONLY
- Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.
- Special packaging requirements**
Not applicable.

2.3 Other hazards

- Other hazards which do not result in classification** : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixture

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
Blocked Isocyanate Polymer	CAS: 191427-71-1	≥25 - ≤50	Skin Sens. 1, H317	[1] [2] 
1-Methoxy-2-Propanol Acetate	EC: 203-603-9 CAS: 108-65-6 Index: 607-195-00-7	≥25 - ≤50	Flam. Liq. 3, H226	[2]
Homopolymer of HDI	EC: 223-242-0 CAS: 3779-63-3	≤13	Acute Tox. 4, H332 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Chronic 3, H412	[1]
Blocked Polyisocyanate	CAS: 666723-27-9	≤11	Acute Tox. 4, H332 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Chronic 3, H412	[1] [2]
Xylene	REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9	<10	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373	[1] [2]
Ethylbenzene	REACH #:	≤2.1	Asp. Tox. 1, H304 Flam. Liq. 2, H225	[1] [2]

SECTION 3: Composition/information on ingredients

Dimethylcyclohexylamine	01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4 REACH #: 01-2119533030-60 EC: 202-715-5 CAS: 98-94-2	≤0.3	Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304 Flam. Liq. 3, H226 Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Chronic 2, H411	[1]
Isophorone Diisocyanate (max.)	REACH #: 01-2119490408-31 EC: 223-861-6 CAS: 4098-71-9 Index: 615-008-00-5	≤0.24	Acute Tox. 1, H330 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Chronic 2, H411 See Section 16 for the full text of the H statements declared above.	[1] [2]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

[5] Substance of equivalent concern

[6] Additional disclosure due to company policy

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- General** : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.
- Eye contact** : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

SECTION 4: First aid measures

There are no data available on the mixture itself. Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Contains Blocked Isocyanate Polymer, Blocked Polyisocyanate, 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate. May produce an allergic reaction.

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 medical surveillance for 48 hours.

Specific treatments : No specific treatment.

See toxicological information (Section 11)

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Recommended: alcohol-resistant foam, carbon dioxide, powders.

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

Hazardous combustion products : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

5.3 Advice for firefighters

Special protective actions for fire-fighters : Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

Special protective equipment for fire-fighters : Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Exclude sources of ignition and ventilate the area. Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8.

Keep unnecessary and unprotected personnel from entering.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

SECTION 6: Accidental release measures

- 6.2 Environmental precautions** : Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.
- 6.3 Methods and material for containment and cleaning up** : Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Preferably clean with a detergent. Avoid using solvents.
- 6.4 Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

- 7.1 Precautions for safe handling** : Prevent the creation of flammable or explosive concentrations of vapours in air and avoid vapour concentrations higher than the occupational exposure limits. In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. Mixture may charge electrostatically: always use earthing leads when transferring from one container to another. Operators should wear antistatic footwear and clothing and floors should be of the conducting type. Keep away from heat, sparks and flame. No sparking tools should be used. Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Avoid inhalation of dust from sanding. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Put on appropriate personal protective equipment (see Section 8). Never use pressure to empty. Container is not a pressure vessel. Always keep in containers made from the same material as the original one. Comply with the health and safety at work laws. Do not allow to enter drains or watercourses.
- Information on fire and explosion protection**
Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

- 7.2 Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations.
- Notes on joint storage**
Keep away from: oxidising agents, strong alkalis, strong acids.
- Additional information on storage conditions**
Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.
- Contaminated absorbent material may pose the same hazard as the spilt product.

- 7.3 Specific end use(s)**
- Recommendations** : Not available.

SECTION 7: Handling and storage

Industrial sector specific solutions : Not available.

Good housekeeping standards, regular safe removal of waste materials and regular maintenance of spray booth filters will minimise the risks of spontaneous combustion and other fire hazards.

Before use of this material please refer to the Exposure Scenario(s) if attached for the specific end use, control measures and additional PPE considerations.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters**Occupational exposure limits**

Product/ingredient name	Exposure limit values
Blocked Isocyanate Polymer	NAOSH (Ireland, 3/2016). Skin sensitiser. OELV-8hr: 0.02 mg/m ³ , (as NCO) 8 hours. OELV-15min: 0.07 mg/m ³ , (as NCO) 15 minutes.
1-Methoxy-2-Propanol Acetate	NAOSH (Ireland, 3/2016). Absorbed through skin. OELV-8hr: 50 ppm 8 hours. OELV-8hr: 275 mg/m ³ 8 hours. OELV-15min: 100 ppm 15 minutes. OELV-15min: 550 mg/m ³ 15 minutes.
Blocked Polyisocyanate	NAOSH (Ireland, 3/2016). Skin sensitiser. OELV-8hr: 0.02 mg/m ³ , (as NCO) 8 hours. OELV-15min: 0.07 mg/m ³ , (as NCO) 15 minutes.
Xylene	NAOSH (Ireland, 3/2016). Absorbed through skin. OELV-8hr: 50 ppm 8 hours. OELV-8hr: 221 mg/m ³ 8 hours. OELV-15min: 100 ppm 15 minutes. OELV-15min: 442 mg/m ³ 15 minutes.
Ethylbenzene	NAOSH (Ireland, 3/2016). Absorbed through skin. OELV-8hr: 100 ppm 8 hours. OELV-8hr: 442 mg/m ³ 8 hours. OELV-15min: 200 ppm 15 minutes. OELV-15min: 884 mg/m ³ 15 minutes.
Isophorone Diisocyanate (max.)	NAOSH (Ireland, 3/2016). Skin sensitiser. OELV-8hr: 0.005 ppm, (as NCO) 8 hours.

- Recommended monitoring procedures** :
- If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
 - Regular monitoring of all work areas should be carried out at all times, including areas that may not be equally ventilated.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects	
1-Methoxy-2-Propanol Acetate	DNEL	Long term Inhalation	33 mg/m ³	Consumers	Local	
	DNEL	Long term Oral	36 mg/kg bw/day	Consumers	Systemic	
	DNEL	Long term Dermal	320 mg/kg	Consumers	Systemic	
	DNEL	Long term Inhalation	33 mg/m ³	Consumers	Systemic	
	DNEL	Long term Inhalation	550 mg/m ³	Workers	Local	
	DNEL	Long term Dermal	796 mg/kg bw/day	Workers	Systemic	
	DNEL	Long term Inhalation	275 mg/m ³	Workers	Systemic	
	Xylene	DNEL	Long term Dermal	180 mg/kg bw/day	Workers	Systemic
		DNEL	Long term Dermal	108 mg/kg bw/day	Human via the environment	Systemic
		DNEL	Long term Inhalation	77 mg/m ³	Workers	Systemic
		DNEL	Short term Inhalation	289 mg/m ³	Workers	Systemic
		DNEL	Short term Inhalation	289 mg/m ³	Workers	Local
		DNEL	Long term Inhalation	14.8 mg/m ³	Human via the environment	Systemic
		DNEL	Short term Inhalation	174 mg/m ³	Consumers	Systemic
	DNEL	Short term Inhalation	174 mg/m ³	Consumers	Local	

Product/ingredient name	Compartment Detail	Value	Method Detail
1-Methoxy-2-Propanol Acetate	Fresh water	0.635 mg/kg	-
	Marine water	0.0635 mg/l	-
	Fresh water sediment	3.29 mg/kg	-
	Marine water sediment	0.329 mg/kg	-
	Soil	0.29 mg/kg	-
	Sewage Treatment Plant	100 mg/l	-
Xylene	Fresh water	0.327 mg/l	-
	Marine water	0.327 mg/l	-
	Fresh water sediment	12.46 mg/l	-
	Sewage Treatment Plant	6.58 mg/l	-
	Soil	2.31 mg/kg	-
	Marine water sediment	12.46 mg/l	-

- : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, suitable respiratory protection must be worn.
- : Users are advised to consider national Occupational Exposure Limits or other equivalent values.

Individual protection measures

SECTION 8: Exposure controls/personal protection

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Use safety eyewear designed to protect against splash of liquids.
- Skin protection**
- Hand protection** : Wear suitable gloves tested to EN374.
- Gloves** : Short Term Exposure less than 10 minutes Continuous use Nitrile gloves. Hazardous ingredients Section 3 For more than 4 hours of protection in the presence of Ethyl methyl ketone or Methyl ethyl ketone Acetone or Methyl isobutyl ketone Butyl gloves 0.7mm For more than 4 hours of protection in the presence of Aromatic solvent use polyvinyl alcohol (PVA) gloves. Long Term Exposure Spill / For prolonged or repeated handling, use PE / PE Laminate gloves > 8 hours (breakthrough time) . There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. The breakthrough time must be greater than the end use time of the product. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance. Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.
- Body protection** : Personnel should wear antistatic clothing made of natural fibres or of high-temperature-resistant synthetic fibres. : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Recommended: A2P2 (EN14387). Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Environmental exposure controls** : Do not allow to enter drains or watercourses.

Before use of this material please refer to the Exposure Scenario(s) if attached for the specific end use, control measures and additional PPE considerations. The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties****Appearance**

Physical state	: Liquid.	
Colour	: Not available.	
Odour	: Solvent.	▶
Odour threshold	: Not Available (Not Tested).	▶
pH	: Not relevant/applicable due to nature of the product.	
Melting point/freezing point	: Not relevant/applicable due to nature of the product.	
Initial boiling point and boiling range	: 136°C	
Flash point	: Closed cup: 40°C [Pensky-Martens Closed Cup]	
Evaporation rate	: 0.8 (butyl acetate = 1)	
Flammability (solid, gas)	: Not relevant/applicable due to nature of the product.	
Upper/lower flammability or explosive limits	: LEL: 1% (Xylene) UEL: 13.1% (1-Methoxy-2-Propanol Acetate)	
Vapour pressure	: 0.95 kPa [at 20°C]	
Vapour density	: 3.66 [Air = 1]	
Relative density	: 1.06	
Solubility(ies)	: Not relevant/applicable due to nature of the product.	
Partition coefficient: n-octanol/ water	: Not relevant/applicable due to nature of the product.	
Auto-ignition temperature	: Not relevant/applicable due to nature of the product.	
Decomposition temperature	: Not relevant/applicable due to nature of the product.	
Viscosity	: Kinematic (40°C): >0.205 cm ² /s	
Explosive properties	: Under normal conditions of storage and use, hazardous reactions will not occur.	
Oxidising properties	: Under normal conditions of storage and use, hazardous reactions will not occur.	

SECTION 10: Stability and reactivity

10.1 Reactivity	: No specific test data related to reactivity available for this product or its ingredients.	▶
10.2 Chemical stability	: Stable under recommended storage and handling conditions (see Section 7).	
10.3 Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.	▶
10.4 Conditions to avoid	: When exposed to high temperatures may produce hazardous decomposition products.	▶
10.5 Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.	▶
10.6 Hazardous decomposition products	: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.	▶

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

There are no data available on the mixture itself. Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Contains Blocked Isocyanate Polymer, Blocked Polyisocyanate, 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate. May produce an allergic reaction.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
1-Methoxy-2-Propanol Acetate	LD50 Dermal	Rabbit	>5 g/kg	-
Xylene	LD50 Oral	Rat	8532 mg/kg	-
	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
Ethylbenzene	LD50 Oral	Rat	4300 mg/kg	-
	LD50 Dermal	Rabbit	>5000 mg/kg	-
Dimethylcyclohexylamine	LD50 Oral	Rat	3500 mg/kg	-
	LD50 Dermal	Rat	370 mg/kg	-
Isophorone Diisocyanate (max.)	LD50 Oral	Rat	348 mg/kg	-
	LC50 Inhalation Vapour	Rat	123 mg/m ³	4 hours
	LD50 Oral	Rat	4825 mg/kg	-

Acute toxicity estimates

Route	ATE value
Oral	37878.8 mg/kg
Dermal	14657.2 mg/kg
Inhalation (gases)	74404.8 ppm
Inhalation (vapours)	25.07 mg/l

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Xylene	Eyes - Mild irritant	Rabbit	-	87 milligrams	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 milligrams	-
	Skin - Mild irritant	Rat	-	8 hours 60 microliters	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-
Ethylbenzene	Skin - Moderate irritant	Rabbit	-	100 Percent	-
	Eyes - Severe irritant	Rabbit	-	500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 milligrams	-

Conclusion/Summary : Not available.

Sensitisation

No data available

Conclusion/Summary : Not available.

SECTION 11: Toxicological information

Mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Teratogenicity

No data available

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Homopolymer of HDI	Category 3	Not applicable.	Respiratory tract irritation
Blocked Polyisocyanate	Category 3	Not applicable.	Respiratory tract irritation
Xylene	Category 3	Not applicable.	Respiratory tract irritation
Isophorone Diisocyanate (max.)	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Xylene	Category 2	Not determined	Not determined
Ethylbenzene	Category 2	Not determined	hearing organs

Aspiration hazard

Product/ingredient name	Result
Xylene	ASPIRATION HAZARD - Category 1
Ethylbenzene	ASPIRATION HAZARD - Category 1

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

There are no data available on the mixture itself.

Do not allow to enter drains or watercourses.

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

Product/ingredient name	Result	Species	Exposure
Xylene	Acute LC50 8500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
Ethylbenzene	Acute LC50 13400 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute EC50 4600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 3600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 6530 µg/l Fresh water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute EC50 2930 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 4200 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours

SECTION 12: Ecological information

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
No data available				

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Xylene	-	-	Readily
Ethylbenzene	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Homopolymer of HDI	-	367.7	low
Xylene	-	8.1 to 25.9	low
Dimethylcyclohexylamine	-	35.66	low

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

12.6 Other adverse effects : No known significant effects or critical hazards.

: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Yes.

European waste catalogue (EWC) : waste paint and varnish containing organic solvents or other hazardous substances 08 01 11*

Disposal considerations : Do not allow to enter drains or watercourses. Dispose of according to all federal, state and local applicable regulations. If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. For further information, contact your local waste authority.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

SECTION 13: Disposal considerations

- Disposal considerations** : Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers. Empty containers must be scrapped or reconditioned. Dispose of containers contaminated by the product in accordance with local or national legal provisions.
- European waste catalogue (EWC)** : packaging containing residues of or contaminated by hazardous substances 15 01 10*
- Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number	UN1263	UN1263	UN1263
14.2 UN proper shipping name	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL
14.3 Transport Hazard Class(es)/ Label(s)	3 	3 	3 
14.4 Packing group	III	III	III
14.5 Environmental hazards	No.	No.	No.
Additional information	<u>Tunnel code</u> D/E	<u>Emergency schedules</u> F-E, S-E	-

- 14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

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

Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

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 authorisation

Annex XIV

None of the components are listed.

Annex XVII - Restrictions : Not applicable.
*on the manufacture,
placing on the market
and use of certain
dangerous substances,
mixtures and articles*

Other EU regulations

VOC content (2010/75/EU) : 37 w/w
393 g/l

Seveso Directive

This product may add to the calculation for determining whether a site is within the scope of the Seveso Directive on major accident hazards.

National regulations

15.2 Chemical safety assessment : No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
vPvB = Very Persistent and Very Bioaccumulative

Key literature references and sources for data : Regulation (EC) No. 1272/2008 [CLP]
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
IATA = International Air Transport Association
IMDG = International Maritime Dangerous Goods
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2015/830
Directive 2012/18/EU, and relative amendments & additions
Directive 2008/98/EC, and relative amendments & additions
Directive 2009/161/EU, and relative amendments & additions
CEPE Guidelines

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Flam. Liq. 3, H226 Skin Sens. 1, H317 STOT SE 3, H335	On basis of test data Calculation method Calculation method

SECTION 16: Other information

Full text of abbreviated H statements	:	H225	Highly flammable liquid and vapour.
		H226	Flammable liquid and vapour.
		H301	Toxic if swallowed.
		H304	May be fatal if swallowed and enters airways.
		H311	Toxic in contact with skin.
		H312	Harmful in contact with skin.
		H314	Causes severe skin burns and eye damage.
		H315	Causes skin irritation.
		H317	May cause an allergic skin reaction.
		H318	Causes serious eye damage.
		H319	Causes serious eye irritation.
		H330	Fatal if inhaled.
		H331	Toxic if inhaled.
		H332	Harmful if inhaled.
		H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
		H335	May cause respiratory irritation.
		H373	May cause damage to organs through prolonged or repeated exposure.
		H411	Toxic to aquatic life with long lasting effects.
		H412	Harmful to aquatic life with long lasting effects.
Full text of classifications [CLP/GHS]	:	Acute Tox. 1, H330	ACUTE TOXICITY (inhalation) - Category 1
		Acute Tox. 3, H301	ACUTE TOXICITY (oral) - Category 3
		Acute Tox. 3, H311	ACUTE TOXICITY (dermal) - Category 3
		Acute Tox. 3, H331	ACUTE TOXICITY (inhalation) - Category 3
		Acute Tox. 4, H312	ACUTE TOXICITY (dermal) - Category 4
		Acute Tox. 4, H332	ACUTE TOXICITY (inhalation) - Category 4
		Aquatic Chronic 2, H411	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
		Aquatic Chronic 3, H412	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
		Asp. Tox. 1, H304	ASPIRATION HAZARD - Category 1
		Eye Dam. 1, H318	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
		Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
		Flam. Liq. 2, H225	FLAMMABLE LIQUIDS - Category 2
		Flam. Liq. 3, H226	FLAMMABLE LIQUIDS - Category 3
		Resp. Sens. 1, H334	RESPIRATORY SENSITISATION - Category 1
		Skin Corr. 1B, H314	SKIN CORROSION/IRRITATION - Category 1B
		Skin Irrit. 2, H315	SKIN CORROSION/IRRITATION - Category 2
		Skin Sens. 1, H317	SKIN SENSITISATION - Category 1
		STOT RE 2, H373	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
		STOT SE 3, H335	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3
Date of printing	:	10, Apr, 2018.	
Date of issue/ Date of revision	:	10, Apr, 2018	
Date of previous issue	:	21, Mar, 2018	
	:	If there is no previous validation date please contact your supplier for more information.	
Version	:	6	
Notice to reader			

SECTION 16: Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country or local laws. The conditions for use of the product are not under the control of the manufacturer, therefore the customer/buyer/user is responsible for determining the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.