


Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878 - United Kingdom: Northern Ireland

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

#### 1.1 Product identifier

Product name :  Hempel's Curing Agent 97050  
Product identity : 9705000000  
Product type : Curing agent

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

Field of application : used only as part of two- or multi component products  
Ready-for-use mixture : (See base component)  
Identified uses : Industrial applications, Professional applications, Used by spraying.

#### 1.3 Details of the supplier of the safety data sheet

Company details : Hempel UK Ltd  
Berwyn House, The Pavilions  
Llantarnam Park  
Cwmbran  
South Wales NP44 3FD  
Telephone: 01633 833600  
hempel@hempel.com

#### 1.4 Emergency telephone number

Emergency telephone number (with hours of operation)  
  
01633 833600 (08.00 - 17.00)  
See Section 4 of the safety data sheet (first aid measures).


Date of issue : 17 December 2021  
Date of previous issue : 22 July 2019.

### 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	FLAMMABLE LIQUIDS
Acute Tox. 4, H332	ACUTE TOXICITY (inhalation)
Skin Sens. 1, H317	SKIN SENSITISATION
STOT SE 3, H335	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation)
Aquatic Chronic 3, H412	LONG-TERM (CHRONIC) AQUATIC HAZARD


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

#### 2.2 Label elements


Hazard pictograms :





Signal word : Warning

Hazard statements :  H226 - Flammable liquid and vapour.  
H317 - May cause an allergic skin reaction.  
H332 - Harmful if inhaled.  
H335 - May cause respiratory irritation.  
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements :

Prevention :  Wear protective gloves. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hazardous ingredients :  hexamethylene-1,6-diisocyanate homopolymer  
hexamethylene-di-isocyanate

Supplemental label elements :  Contains isocyanates. May produce an allergic reaction.

#### Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

## SECTION 2: Hazards identification

### 2.3 Other hazards

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
hexamethylene-1,6-diisocyanate homopolymer	REACH #: 01-2119485796-17 EC: 500-060-2 CAS: 28182-81-2	≥75 - ≤90	Acute Tox. 4, H332 Skin Sens. 1, H317 STOT SE 3, H335	- [1]
n-butyl acetate	REACH #: 01-2119485493-29 EC: 204-658-1 CAS: 123-86-4 Index: 607-025-00-1	≥5 - ≤10	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066	- [1] [2]
Solvent naphtha (petroleum), light arom.	REACH #: 01-2119455851-35 EC: 265-199-0 CAS: 64742-95-6	≥3 - ≤5	Flam. Liq. 3, H226 STOT SE 3, H335 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411	P [1] [2]
hexamethylene-di-isocyanate	REACH #: 01-2119457571-37 EC: 212-485-8 CAS: 822-06-0 Index: 615-011-00-1	≤0.3	Acute Tox. 4, H302 Acute Tox. 1, H330 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335 See Section 16 for the full text of the H statements declared above.	2 [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 and hence require reporting in this section.

### Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit, see section 8.
- [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

## 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 breathing is irregular, drowsiness, loss of consciousness or cramps: Call 112 and give immediate treatment (first aid).
Eye contact :	Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. In all cases of doubt, or when symptoms persist, seek medical attention.
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. Give nothing by mouth. If unconscious, place in recovery position and get medical attention immediately.
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 this container or label. Keep person warm and at rest. Do not induce vomiting unless directed to do so by medical personnel. Lower the head so that vomit will not re-enter the mouth and throat.
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

#### Potential acute health effects

### SECTION 4: First aid measures

Eye contact :	No known significant effects or critical hazards.
Inhalation :	Harmful if inhaled. May cause respiratory irritation.
Skin contact :	May cause an allergic skin reaction.
Ingestion :	No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

Eye contact :	No specific data.
Inhalation :	Adverse symptoms may include the following: respiratory tract irritation coughing
Skin contact :	Adverse symptoms may include the following: irritation redness
Ingestion :	No specific data.

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

Notes to physician :	If gasses have been inhaled, from the decomposition of the product, symptoms may be delayed. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments :	No specific treatment.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

Extinguishing media :	Recommended: alcohol resistant foam, CO <sub>2</sub> , powders, water spray. Not to be used : waterjet.
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#### 5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture :	Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous combustion products :	Decomposition products may include the following materials: carbon oxides nitrogen oxides

#### 5.3 Advice for firefighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

### SECTION 6: Accidental release measures

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

Avoid all direct contact with the spilled material. Exclude sources of ignition and be aware of explosion hazard. Ventilate the area. Refer to protective measures listed in sections 7 and 8. No action shall be taken involving any personal risk or without suitable training. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

#### 6.2 Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material.

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

Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. 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). Use spark-proof tools and explosion-proof equipment. Contaminated absorbent material may pose the same hazard as the spilt product.

## SECTION 6: Accidental release measures

### 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

### 7.1 Precautions for safe handling

Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapors in air and avoid vapor concentrations higher than the occupational exposure limits. In addition, the product should be used only in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. To dissipate static electricity during transfer, ground drum and connect to receiving container with bonding strap. No sparking tools should be used. Contains isocyanates. Exposure to isocyanate may result in acute irritation and/or sensitisation when breathing.

**Care should be taken when re-opening partly-used containers.**

Avoid inhalation of vapour, dust and spray mist. Avoid contact with skin and eyes. Eating, drinking and smoking should be prohibited in area where this material is handled, stored and processed. Appropriate personal protective equipment: see Section 8. Always keep in containers made from the same material as the original one.

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

Store in accordance with local regulations for flammable liquids. Store in a cool, well-ventilated area away from incompatible materials and ignition sources. Keep out of the reach of children. Keep away from: Oxidizing agents, strong alkalis, strong acids as well as of amines, alcohols and water. No smoking. Prevent unauthorized access. Containers that are opened must be carefully resealed and kept upright to prevent leakage.

### 7.3 Specific end use(s)

See separate Product Data Sheet for recommendations or industrial sector specific solutions.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Product/ingredient name	Exposure limit values
<div> <div></div> <div>hexamethylene-1,6-diisocyanate homopolymer</div> </div> <div> <div></div> <div>n-butyl acetate</div> </div> <div> <div></div> <div>Solvent naphtha (petroleum), light arom.</div> </div> <div> <div></div> <div>hexamethylene-di-isocyanate</div> </div>	<p><b>EH40/2005 WELs (United Kingdom (UK), 1/2020). Inhalation sensitiser.</b> STEL: 0.07 mg/m<sup>3</sup>, (as -NCO) 15 minutes. TWA: 0.02 mg/m<sup>3</sup>, (as -NCO) 8 hours.</p> <p><b>EH40/2005 WELs (United Kingdom (UK), 1/2020).</b> STEL: 966 mg/m<sup>3</sup> 15 minutes. STEL: 200 ppm 15 minutes. TWA: 724 mg/m<sup>3</sup> 8 hours. TWA: 150 ppm 8 hours.</p> <p><b>EU OEL (Europe).</b> TWA: 120 mg/m<sup>3</sup> 8 hours. Form: Tentativ TWA: 25 ppm 8 hours. Form: Tentativ</p> <p><b>EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.</b> TWA: 5 mg/m<sup>3</sup>, (as CN) 8 hours. STEL: 0.07 mg/m<sup>3</sup>, (as -NCO) 15 minutes.</p>

### 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.

### Derived effect levels

Product/ingredient name	Type	Exposure	Value	Population	Effects
<div> <div></div> <div>n-butyl acetate</div> </div>	DNEL	Long term Inhalation	300 mg/m <sup>3</sup>	Workers	Systemic
Solvent naphtha (petroleum), light arom.	DNEL	Long term Dermal	11 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	25 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	150 mg/m <sup>3</sup>	Workers	Systemic
hexamethylene-di-isocyanate	DNEL	Long term Inhalation	0.035 mg/m <sup>3</sup>	Workers	Systemic

### Predicted effect concentrations

### SECTION 8: Exposure controls/personal protection

Product/ingredient name	Compartment Detail	Value	Method Detail
hexamethylene-1,6-diisocyanate homopolymer	Fresh water	0.127 mg/l	-
	Marine water	0.0127 mg/l	-
	Fresh water sediment	266700 mg/kg dwt	-
	Marine water sediment	26670 mg/kg dwt	-
	Soil	53182 mg/kg dwt	-
	Sewage Treatment Plant	88 mg/l	-
	Fresh water	0.18 mg/l	-
	Marine	0.018 mg/l	-
	Fresh water sediment	0.981 mg/kg	-
	Marine water sediment	0.0981 mg/kg	-
n-butyl acetate	Soil	0.0903 mg/kg	-
	Sewage Treatment Plant	35.6 mg/l	-
	Fresh water	77.4 µg/l	-
	Marine	7.74 µg/l	-
	Fresh water sediment	13.34 mg/kg	-
	Marine water sediment	1.33 mg/kg	-
	Soil	2.6 mg/kg	-
	Sewage Treatment Plant	8.42 mg/l	-
hexamethylene-di-isocyanate			

#### 8.2 Exposure controls

##### Appropriate engineering controls

Arrange sufficient ventilation by local exhaust ventilation and good general ventilation to keep the airborne concentrations of vapors or dust lowest possible and below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

##### Individual protection measures

- General :** Gloves must be worn for all work that may result in soiling. Apron/coveralls/protective clothing must be worn when soiling is so great that regular work clothes do not adequately protect skin against contact with the product. Safety eyewear should be used when there is a likelihood of exposure.
- Hygiene measures :** Wash hands, forearms, and face thoroughly after handling compounds and before eating, smoking, using lavatory, and at the end of day.
- Eye/face protection :** Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Hand protection :** Wear chemical-resistant gloves (tested to EN374) in combination with 'basic' employee training. The quality of the chemical-resistant protective gloves must be chosen as a function of the specific workplace concentrations and quantity of hazardous substances.
- Since the actual work situation is unknown. Supplier of gloves should be contacted in order to find the appropriate type. Below listed glove(s) should be regarded as generic advice:
- Recommended: Silver Shield / Barrier / 4H gloves, nitrile rubber, polyvinyl alcohol (PVA), Viton®  
May be used: neoprene rubber, butyl rubber  
Short term exposure: natural rubber (latex), polyvinyl chloride (PVC)
- Body protection :** Personal protective equipment for the body should be selected based on the task being performed and the risks involved handling this product.  
Wear suitable protective clothing. Always wear protective clothing when spraying.
- Respiratory protection :** Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. 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. If working areas have insufficient ventilation: When the product is applied by means that will not generate an aerosol such as, brush or roller wear half or totally covering mask equipped with gas filter of type A, when grinding use particle filter of type P. Be sure to use an approved/certified respirator or equivalent. Dry sanding, flame cutting and/or welding of the dry paint film will give rise to dust and/or hazardous fumes. Wet sanding/flattening should be used wherever possible. If exposure cannot be avoided by the provision of local exhaust ventilation, suitable respiratory protective equipment should be used.

##### Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state :	Liquid.
Colour :	Transparent
Odour :	Isocyanate
pH :	Testing not relevant or not possible due to nature of the product.
Melting point/freezing point :	39.85°C This is based on data for the following ingredient: hexamethylene-1,6-diisocyanate homopolymer
Boiling point/boiling range :	Testing not relevant or not possible due to nature of the product.
Flash point :	Closed cup: 47°C (116.6°F)
Evaporation rate :	Testing not relevant or not possible due to nature of the product.
Flammability :	Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and oxidising materials.
Lower and upper explosive (flammable) limits :	4 - 7.6 vol %
Vapour pressure :	kPa This is based on data for the following ingredient: hexamethylene-1,6-diisocyanate homopolymer
Vapour density :	Testing not relevant or not possible due to nature of the product.
Specific gravity :	1.13 g/cm <sup>3</sup>
Solubility(ies) :	Very slightly soluble in the following materials: cold water and hot water.
Partition coefficient (LogKow) :	Testing not relevant or not possible due to nature of the product.
Auto-ignition temperature :	Lowest known value: 280 - 470°C (536 - 878°F) (Solvent naphtha (petroleum), light arom.).
Decomposition temperature :	Testing not relevant or not possible due to nature of the product.
Viscosity :	Aspiration hazard (H304) Not classified. Testing not relevant due to nature of the product.
Explosive properties :	Slightly explosive in the presence of the following materials or conditions: open flames, sparks and static discharge.
Oxidising properties :	Testing not relevant or not possible due to nature of the product.

### 9.2 Other information

Solvent(s) % by weight :	Weighted average: 10 %
Water % by weight :	Weighted average: 0 %
VOC content :	14.6 g/l
TOC Content :	Weighted average: 87 g/l
Solvent Gas :	Weighted average: 0.024 m <sup>3</sup> /l

## 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

The product is stable.

### 10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

### 10.4 Conditions to avoid

Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

### 10.5 Incompatible materials

Highly reactive or incompatible with the following materials: oxidising materials.

### 10.6 Hazardous decomposition products

When exposed to high temperatures (i.e. in case of fire) harmful decomposition products may be formed:

### SECTION 10: Stability and reactivity

Decomposition products may include the following materials: carbon oxides nitrogen oxides

### SECTION 11: Toxicological information

#### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Exposure to component solvent vapor concentrations 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. Solvents may cause some of the above effects by absorption through the skin. Symptoms and signs include headaches, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Repeated or prolonged contact with the preparation 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. Accidental swallowing may cause stomach pain. Chemical lung inflammation may occur if the product is taken into the lungs via vomiting.

Isocyanate containing products have characteristics that include producing acute irritation and/or sensitisation when breathing, subsequent asthmatic problems and lung contractions. Sensitised people can, as a result from this, show asthmatic symptoms with exposure to atmospheric concentrations far below the TLV. Repeated exposures will lead to permanent damage to the respiratory system.

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
hexamethylene-1,6-diisocyanate homopolymer	LC50 Inhalation Dusts and mists	Rat	18500 mg/m <sup>3</sup>	1 hours
n-butyl acetate	LC50 Inhalation Dusts and mists	Rat	1.5 mg/l	4 hours
	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>2500 mg/kg	-
	LC50 Inhalation Vapour	Rat	>21 mg/l	4 hours
Solvent naphtha (petroleum), light arom.	LD50 Dermal	Rabbit	>14112 mg/kg	-
	LD50 Oral	Rat	10768 mg/kg	-
	LC50 Inhalation Vapour	Rat	6193 mg/m <sup>3</sup>	4 hours
	LD50 Dermal	Rabbit	3160 mg/kg	-
hexamethylene-di-isocyanate	LD50 Oral	Rat	3492 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	124 mg/m <sup>3</sup>	4 hours
	LC50 Inhalation Vapour	Rat	0.124 mg/l	4 hours
	LD50 Dermal	Rabbit	>7000 mg/kg	-
	LD50 Oral	Rat	746 mg/kg	-

#### Acute toxicity estimates

Product/ingredient name	Oral mg/kg	Dermal mg/kg	Inhalation (gases) ppm	Inhalation (vapours) mg/l	Inhalation (dusts and mists) mg/l
Hempel's Curing Agent 97050				47.5	1.9
hexamethylene-1,6-diisocyanate homopolymer					1.5
n-butyl acetate	10768				
Solvent naphtha (petroleum), light arom.	3492	3160			
hexamethylene-di-isocyanate	746			0.124	

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure
hexamethylene-1,6-diisocyanate homopolymer	Skin - Mild irritant	Rabbit	-	-
n-butyl acetate	Eyes - Mild irritant	Rabbit	-	-
	Respiratory - Mild irritant	Rabbit	-	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams
	Eyes - Mild irritant	Rabbit	-	-
Solvent naphtha (petroleum), light arom.	Respiratory - Mild irritant	Rabbit	-	-
	Eyes - Mild irritant	Rabbit	-	24 hours 100 microliters
	Respiratory - Mild irritant	Rabbit	-	-
	Skin - Moderate irritant	Rabbit	-	-
hexamethylene-di-isocyanate	Skin - Severe irritant	Rabbit	-	-
	Eyes - Severe irritant	Rabbit	-	-
	Respiratory - Severe irritant	Rabbit	-	-
			-	-

#### Sensitiser

Product/ingredient name	Route of exposure	Species	Result
hexamethylene-1,6-diisocyanate homopolymer	skin	Guinea pig	Sensitising
hexamethylene-di-isocyanate	skin	Guinea pig	Sensitising

#### Mutagenic effects

### SECTION 11: Toxicological information

No known significant effects or critical hazards.

#### Carcinogenicity

No known significant effects or critical hazards.

#### Reproductive toxicity

No known significant effects or critical hazards.

#### Teratogenic effects

No known significant effects or critical hazards.

#### Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
<input checked="" type="checkbox"/> hexamethylene-1,6-diisocyanate homopolymer <input checked="" type="checkbox"/> n-butyl acetate Solvent naphtha (petroleum), light arom.	Category 3 Category 3 Category 3 Category 3		Respiratory tract irritation Narcotic effects Respiratory tract irritation Narcotic effects

#### Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
No known data available in our database.			

#### Aspiration hazard

Product/ingredient name	Result
<input checked="" type="checkbox"/> Solvent naphtha (petroleum), light arom.	ASPIRATION HAZARD - Category 1

#### Information on likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation.

#### Potential chronic health effects

Sensitisation : ☒ Contains hexamethylene-1,6-diisocyanate homopolymer, hexamethylene-di-isocyanate. May produce an allergic reaction.

#### 11.2 Information on other hazards

Endocrine disrupting properties : No known data available in our database.

Other information : No additional known significant effects or critical hazards.

### SECTION 12: Ecological information

#### 12.1 Toxicity

☒ Do not allow to enter drains or watercourses. Harmful to aquatic life with long lasting effects.

Product/ingredient name	Result	Species	Exposure
<input checked="" type="checkbox"/> n-butyl acetate Solvent naphtha (petroleum), light arom.	Acute EC50 648 mg/l Acute EC50 44 mg/l Acute EC50 2.6 mg/l  Acute EC50 3.2 mg/l Acute LC50 9.22 mg/l	Algae Daphnia Algae - Pseudokirchneriella subcapitata (green algae) Daphnia Fish - Oncorhynchus mykiss (rainbow trout)	72 hours 48 hours 96 hours  48 hours 96 hours

#### 12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
<input checked="" type="checkbox"/> hexamethylene-1,6-diisocyanate homopolymer <input checked="" type="checkbox"/> n-butyl acetate	-	1 % - Not readily - 28 days	-	-
Solvent naphtha (petroleum), light arom.	-	90 % - Readily - 28 days	-	-
	OECD 301D Ready	80 % - Readily - 5 days	-	-
	Biodegradability - Closed Bottle Test			
	OECD 301F Ready	78 % - Readily - 28 days	-	-
hexamethylene-di-isocyanate	Biodegradability - Manometric Respirometry Test			
	-	>70 % - Readily - 28 days	-	-
	-	>60 % - Readily - 28 days	-	-
	-	42 % - Not readily - 28 days	-	-

### SECTION 12: Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
hexamethylene-1,6-diisocyanate homopolymer	-	-	Not readily
n-butyl acetate	-	-	Readily
Solvent naphtha (petroleum), light arom.	-	-	Readily
hexamethylene-di-isocyanate	-	-	Not readily

#### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
hexamethylene-1,6-diisocyanate homopolymer	5.54	367.7	low
n-butyl acetate	2.3	3.1	low
Solvent naphtha (petroleum), light arom.	-	10 - 2500	high
hexamethylene-di-isocyanate	0.02	57.63	low

#### 12.4 Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : No known data available in our database.

Mobility : No known data available in our database.

#### 12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
This mixture does not contain any substances that are assessed to be a PBT or a vPvB.							

#### 12.6 Endocrine disrupting properties

No known data available in our database.

#### 12.7 Other adverse effects

No known significant effects or critical hazards.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

The generation of waste should be avoided or minimised wherever possible. Residues of the product is listed as hazardous waste. Dispose of according to all state and local applicable regulations. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Spillage, remains, discarded clothes and similar should be discarded in a fireproof container.

European waste catalogue no. (EWC) is given below.



European waste catalogue (EWC) : 08 01 11\*

#### Packaging

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 14: Transport information

Transport may take place according to national regulation or ADR for transport by road, RID for transport by train, IMDG for transport by sea, IATA for transport by air.

	14.1 UN / ID no.	14.2 Proper shipping name	14.3 Transport hazard class(es)	14.4 PG*	14.5 Env* Additional information
<b>ADR/RID Class</b>	UN1263	PAINT	3 	III	No. <u>Tunnel code</u> (D/E)
<b>IMDG Class</b>	UN1263	PAINT	3 	III	No. <u>Emergency schedules</u> F-E, S-E

### SECTION 14: Transport information

IATA Class	UN1263 PAINT	3		III	No. -
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PG\* : Packing group

Env.\* : Environmental hazards

#### 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 Maritime transport in bulk according to IMO instruments

Not applicable.

### 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 - Substances of very high concern

##### Annex XIV

None of the components are listed.

##### Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

As from 24 August 2023 adequate training is required before industrial or professional use.

##### Other EU regulations

##### Seveso category

This product is controlled under the Seveso III Directive.

Seveso category
P5c: Flammable liquids 2 and 3 not falling under P5a or P5b

#### 15.2 Chemical safety assessment

### SECTION 16: Other information

Abbreviations and acronyms :

ATE = Acute Toxicity Estimate  
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
 EUH statement = CLP-specific Hazard statement  
 RRN = REACH Registration Number  
 DNEL = Derived No Effect Level  
 PNEC = Predicted No Effect Concentration

Full text of abbreviated H statements :


H226 Flammable liquid and vapour.  
 H302 Harmful if swallowed.  
 H304 May be fatal if swallowed and enters airways.  
 H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H319 Causes serious eye irritation.  
 H330 Fatal if inhaled.  
 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.  
 H411 Toxic to aquatic life with long lasting effects.  
 H412 Harmful to aquatic life with long lasting effects.  
 EUH066 Repeated exposure may cause skin dryness or cracking.

Full text of classifications [CLP/GHS] :

Acute Tox. 1 ACUTE TOXICITY - Category 1  
 Acute Tox. 4 ACUTE TOXICITY - Category 4  
 Aquatic Chronic 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2  
 Aquatic Chronic 3 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3  
 Asp. Tox. 1 ASPIRATION HAZARD - Category 1  
 Eye Irrit. 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2  
 Flam. Liq. 3 FLAMMABLE LIQUIDS - Category 3  
 Resp. Sens. 1 RESPIRATORY SENSITISATION - Category 1  
 Skin Irrit. 2 SKIN CORROSION/IRRITATION - Category 2  
 Skin Sens. 1 SKIN SENSITISATION - Category 1  
 STOT SE 3 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

### SECTION 16: Other information

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

Classification	Justification
 FLAMMABLE LIQUIDS ACUTE TOXICITY (inhalation) SKIN SENSITISATION SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) LONG-TERM (CHRONIC) AQUATIC HAZARD	On basis of test data Calculation method Calculation method Calculation method Calculation method

#### Notice to reader

 Indicates information that has changed from previously issued version.

The information contained in this safety data sheet is based on the present state of knowledge and EU and national legislation. It provides guidance on health, safety and environmental aspects for handling the product in a safe way and should not be construed as any guarantee of the technical performance or suitability for particular applications.

It is always the duty of the user/employer to ascertain that the work is planned and carried out in accordance with the national regulations.

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.

### General description of the process covered

Indoor spray painting by professionals with efficient ventilation such as spray booth or local exhaust ventilation

**This safe use information is linked to** : Professional spray painting, near-industrial setting - Level I  
HMP I/PW 01a

**Sector(s) of use** : Industrial uses - Professional uses

**Product category(ies)** : Coatings and paints, thinners, paint removers

### Operational conditions

**Place of use** : Indoor use

**Range of application/Process conditions** : Assumes a good standard of occupational hygiene and safety management has been implemented.

### Risk management measures (RMM)

Contributing activity	Process category (ies)	Maximum duration	Ventilation		Respiratory	Eye	Hands
			Type and air changes per hour				
Preparation of material for application	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Loading of application equipment and handling of coated parts before curing	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Industrial application of coatings by spraying	PROC07	More than 4 hours	Local exhaust ventilation	Refer to relevant technical standards	Wear a respirator conforming to EN140 with an assigned protection factor of at least 10.	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Film formation - force drying, stoving and other technologies	PROC04	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10	None	None	None
Cleaning	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Waste management	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.

See chapter 8 of this Safety Data Sheet for specifications.



This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.

### General description of the process covered

Indoor painting by professionals by dipping or with brush, roller, putty knife etc. with enhanced ventilation or local exhaust ventilation (LEV)

**This safe use information is linked to** : Professional low-energy painting, near-industrial setting - Level I  
HMP I/PW 02a

**Sector(s) of use** : Industrial uses - Professional uses

**Product category(ies)** : Coatings and paints, thinners, paint removers

### Operational conditions

**Place of use** : Indoor use

**Range of application/Process conditions** : Assumes a good standard of occupational hygiene and safety management has been implemented.

### Risk management measures (RMM)

Contributing activity	Process category (ies)	Maximum duration	Ventilation		Respiratory	Eye	Hands
			Type and air changes per hour				
Preparation of material for application	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Loading of application equipment and handling of coated parts before curing	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Industrial application of coatings by other than spraying	PROC10	More than 4 hours	Local exhaust ventilation	Refer to relevant technical standards	Wear a respirator conforming to EN140 with an assigned protection factor of at least 10.	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Film formation - force drying, stoving and other technologies	PROC04	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10	None	None	None
Cleaning	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Waste management	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.

See chapter 8 of this Safety Data Sheet for specifications.



This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.

### General description of the process covered

Indoor spray painting by professionals for general applications (e.g. decorative), with general room ventilation only (open doors/windows)

**This safe use information is linked to** : Professional spray painting, indoor (Level I)  
CEPE / HMP PW 03a

**Sector(s) of use** : Professional uses

**Product category(ies)** : Coatings and paints, thinners, paint removers

### Operational conditions

**Place of use** : Indoor use

### Risk management measures (RMM)

Contributing activity	Process category (ies)	Maximum duration	Ventilation		Respiratory	Eye	Hands
			Type and air changes per hour				
Preparation of material for application	PROC05	More than 4 hours	Good general room ventilation	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Loading of application equipment and handling of coated parts before curing	PROC08a	More than 4 hours	Good general room ventilation	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Professional application of coatings by spraying	PROC11	More than 4 hours	Good general room ventilation	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Film formation - force drying, stoving and other technologies	PROC04	More than 4 hours	Good general room ventilation	3 - 5	None	None	None
Cleaning	PROC05	More than 4 hours	Good general room ventilation	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Waste management	PROC08a	More than 4 hours	Good general room ventilation	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.

See chapter 8 of this Safety Data Sheet for specifications.



This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.

### General description of the process covered

Indoor painting by professionals with brush or roller, with good general room ventilation (open doors/windows)

**This safe use information is linked to** : Professional painting, indoor brush/roller - Level I  
CEPE / HMP PW 04a

**Sector(s) of use** : Professional uses

**Product category(ies)** : Coatings and paints, thinners, paint removers

### Operational conditions

**Place of use** : Indoor use

### Risk management measures (RMM)

Contributing activity	Process category (ies)	Maximum duration	Ventilation		Respiratory	Eye	Hands
			Type and air changes per hour				
Preparation of material for application	PROC05	More than 4 hours	Good general room ventilation	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Loading of application equipment and handling of coated parts before curing	PROC08a	More than 4 hours	Good general room ventilation	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Professional application of coatings by brush or roller	PROC10	More than 4 hours	Good general room ventilation	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Film formation - force drying, stoving and other technologies	PROC04	More than 4 hours	Good general room ventilation	3 - 5	None	None	None
Cleaning	PROC05	More than 4 hours	Good general room ventilation	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Waste management	PROC08a	More than 4 hours	Good general room ventilation	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.

See chapter 8 of this Safety Data Sheet for specifications.



This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.

### General description of the process covered

Outdoor spray painting by professionals for general applications (e.g. decorative)

**This safe use information is linked to** : Professional spray painting, outdoor (Level I)  
CEPE PW 05a

**Sector(s) of use** : Professional uses

**Product category(ies)** : Coatings and paints, thinners, paint removers

### Operational conditions

**Place of use** : Outdoor use

### Risk management measures (RMM)

Contributing activity	Process category (ies)	Maximum duration	Ventilation		Respiratory	Eye	Hands
			Type and air changes per hour				
Preparation of material for application	PROC05	More than 4 hours	Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Loading of application equipment and handling of coated parts before curing	PROC08a	More than 4 hours	Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Professional application of coatings by spraying	PROC11	More than 4 hours	Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Film formation - force drying, stoving and other technologies	PROC04	More than 4 hours	Outdoors	3 - 5	None	None	None
Cleaning	PROC05	More than 4 hours	Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Waste management	PROC08a	More than 4 hours	Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.

See chapter 8 of this Safety Data Sheet for specifications.



This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.

### General description of the process covered

Outdoor spray painting by professionals for specialist applications, with respiratory protection

**This safe use information is linked to** : Professional spray painting, near-industrial setting - Level I  
HMP I/PW 05a

**Sector(s) of use** : Industrial uses - Professional uses

**Product category(ies)** : Coatings and paints, thinners, paint removers

### Operational conditions

**Place of use** : Outdoor use

**Range of application/Process conditions** : Assumes a good standard of occupational hygiene and safety management has been implemented.

### Risk management measures (RMM)

Contributing activity	Process category (ies)	Maximum duration	Ventilation		Respiratory	Eye	Hands
			Type and air changes per hour				
Preparation of material for application	PROC05	More than 4 hours	Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Loading of application equipment and handling of coated parts before curing	PROC08b	More than 4 hours	Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Industrial application of coatings by spraying	PROC07	More than 4 hours	Outdoors	3 - 5	Wear a respirator conforming to EN140 with an assigned protection factor of at least 10.	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Film formation - force drying, stoving and other technologies	PROC04	More than 4 hours	Outdoors	3 - 5	None	None	None
Cleaning	PROC05	More than 4 hours	Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Waste management	PROC08b	More than 4 hours	Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.

See chapter 8 of this Safety Data Sheet for specifications.



This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.

### General description of the process covered

Outdoor painting by professionals by dipping or with brush, roller, putty knife etc.

**This safe use information is linked to** : Professional painting, outdoor brush/roller - Level I  
CEPE / HMP PW 06a

**Sector(s) of use** : Professional uses

**Product category(ies)** : Coatings and paints, thinners, paint removers

### Operational conditions

**Place of use** : Outdoor use

### Risk management measures (RMM)

Contributing activity	Process category (ies)	Maximum duration	Ventilation		Respiratory	Eye	Hands
			Type and air changes per hour				
Preparation of material for application	PROC05	More than 4 hours	Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Loading of application equipment and handling of coated parts before curing	PROC08a	More than 4 hours	Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Professional application of coatings by brush or roller	PROC10	More than 4 hours	Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Film formation - force drying, stoving and other technologies	PROC04	More than 4 hours	Outdoors	3 - 5	None	None	None
Cleaning	PROC05	More than 4 hours	Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Waste management	PROC08a	More than 4 hours	Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.

See chapter 8 of this Safety Data Sheet for specifications.



This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.

### General description of the process covered

Outdoor painting by professionals by dipping or with brush, roller, putty knife etc.

**This safe use information is linked to** : Professional low-energy painting, near-industrial setting - Level I  
HMP I/PW 06a

**Sector(s) of use** : Industrial uses - Professional uses

**Product category(ies)** : Coatings and paints, thinners, paint removers

### Operational conditions

**Place of use** : Outdoor use

**Range of application/Process conditions** : Assumes a good standard of occupational hygiene and safety management has been implemented.

### Risk management measures (RMM)

Contributing activity	Process category (ies)	Maximum duration	Ventilation		Respiratory	Eye	Hands
			Type and air changes per hour				
Preparation of material for application	PROC05	More than 4 hours	Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Loading of application equipment and handling of coated parts before curing	PROC08b	More than 4 hours	Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Industrial application of coatings by other than spraying	PROC10	More than 4 hours	Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Film formation - force drying, stoving and other technologies	PROC04	More than 4 hours	Outdoors	3 - 5	None	None	None
Cleaning	PROC05	More than 4 hours	Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Waste management	PROC08b	More than 4 hours	Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.

See chapter 8 of this Safety Data Sheet for specifications.

