



# SAFETY DATA SHEET

Dacfill PU Basecoat

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

### 1.1 Product identifier

**Product name** : Dacfill PU Basecoat  
**Product description** : Coating.  
**Product type** : Liquid.  
**UFI** : 9G21-H0QU-V00D-TEC0

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

Identified uses	
Professional use Industrial use	
Uses advised against	Reason
Consumer use	Product is not intended for consumer use.

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

RUST-OLEUM EUROPE  
 Martin Mathys NV, Kolenbergstraat 23, B-3545 Zelem, Belgium  
 Telephone no.: +32 (0) 13 460 200  
 Fax no.: +32 (0) 13 460 201

Tor Coatings Limited  
 Unit 21, White Rose Way, Follingsby Park, Gateshead, Tyne & Wear, NE10 8YX United Kingdom  
 Telephone no.: +44 (0) 191 4106611  
 Fax no.: +44 (0) 191 4920125  
 enquiries@tor-coatings.com

**e-mail address of person responsible for this SDS** : rpmeurohas@rustoleum.eu

### 1.4 Emergency telephone number

**National advisory body/Poison Centre**

**Supplier**

Telephone number United Kingdom: : +44 870 8200418 / +44 2038073798  
 Great Britain

Hours of operation : 24 / 7

## 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]**

Skin Sens. 1, H317

Aquatic Chronic 3, H412

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.

## SECTION 2: Hazards identification

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

### 2.2 Label elements

#### Hazard pictograms

:



#### Signal word

: Warning

#### Hazard statements

: H317 - May cause an allergic skin reaction.  
H412 - Harmful to aquatic life with long lasting effects.

#### Precautionary statements

##### General

: Not applicable.

##### Prevention

: P280 - Wear protective gloves.  
P284 - In case of inadequate ventilation wear respiratory protection.

##### Response

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

##### Storage

: Not applicable.

##### Disposal

: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

#### Hazardous ingredients

: 1,6-hexanediyl-bis(2-(2-(1-ethylpentyl)-3-oxazolidinyl)ethyl)carbamate  
reaction mass of 2-ethylhexyl (3-isocyanato-4-methylphenyl)carbamate and  
2-ethylhexyl (5-isocyanato-2-methylphenyl)carbamate and 2-ethylhexyl (3-isocyanato-2-methylphenyl)carbamate  
hexamethylene-1,6-diisocyanate oligomer (type uretdione)  
polyhexamethylene diisocyanate  
3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers  
2-ethylhexanal  
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate  
maleic anhydride

#### Supplemental label elements

: EUH204 - Contains isocyanates. May produce an allergic reaction.

#### Supplemental label elements : Detergents - Regulation (EC) No 907/2006

: Not applicable.

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

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

#### Special packaging requirements

##### Containers to be fitted with child-resistant fastenings

: Not applicable.

##### Tactile warning of danger

: Not applicable.

### 2.3 Other hazards

#### Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

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 : Mixture

#### United Kingdom: Great Britain

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
1,6-hexanediyl-bis(2-(2-(1-ethylpentyl)-3-oxazolidinyl)ethyl) carbamate	EC: 411-700-4 CAS: 140921-24-0 Index: 616-079-00-5	≤10	Skin Sens. 1, H317	-	[1]
Solvent naphtha (petroleum), light arom.	REACH #: 01-2119455851-35 EC: 265-199-0 CAS: 64742-95-6 Index: 649-356-00-4	≤5	Flam. Liq. 3, H226 STOT SE 3, H335 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411	-	[1]
propylene carbonate	EC: 203-572-1 CAS: 108-32-7 Index: 607-194-00-1	≤5	Eye Irrit. 2, H319	-	[1]
reaction mass of 2-ethylhexyl (3-isocyanato-4-methylphenyl)carbamate and 2-ethylhexyl (5-isocyanato-2-methylphenyl)carbamate and 2-ethylhexyl (3-isocyanato-2-methylphenyl)carbamate	REACH #: 01-2120800690-65 List #: 946-383-6	≤3	Eye Irrit. 2, H319 Skin Sens. 1B, H317 Repr. 2, H361fd Aquatic Chronic 4, H413	-	[1]
hexamethylene-1,6-diisocyanate oligomer (type uretdione)	REACH #: 01-2119488177-26 CAS: 28182-81-2 List #: 931-288-4	≤3	Acute Tox. 3, H331 Skin Sens. 1, H317 STOT SE 3, H335	ATE [Inhalation (dusts and mists)] = 0,5 mg/l	[1] [2]
polyhexamethylene diisocyanate	REACH #: 01-2119485796-17 CAS: 28182-81-2 List #: 931-274-8	≤3	Acute Tox. 4, H332 Skin Sens. 1, H317 STOT SE 3, H335	ATE [Inhalation (dusts and mists)] = 1,5 mg/l	[1] [2]
3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers	REACH #: 01-2119488734-24 EC: 500-125-5 CAS: 53880-05-0	≤3	Skin Sens. 1B, H317 STOT SE 3, H335	-	[1] [2]
(bis(isopropyl)naphthalene)	REACH #: 01-2119565150-48 EC: 254-052-6 CAS: 38640-62-9	≤3	Asp. Tox. 1, H304 Aquatic Chronic 1, H410	M [Chronic] = 1	[1]
2-ethylhexanal	EC: 204-596-5 CAS: 123-05-7	≤0,3	Flam. Liq. 3, H226 Skin Sens. 1B, H317 Repr. 2, H361	-	[1]
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	EC: 223-861-6 CAS: 4098-71-9 Index: 615-008-00-5	≤0,1	Acute Tox. 1, H330 Skin Corr. 1C, H314 Eye Dam. 1, H318 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335	ATE [Inhalation (dusts and mists)] = 0,031 mg/l Resp. Sens. 1, H334: C ≥ 0,5% Skin Sens. 1, H317:	[1] [2]

### SECTION 3: Composition/information on ingredients

maleic anhydride	REACH #: 01-2119472428-31 EC: 203-571-6 CAS: 108-31-6 Index: 607-096-00-9	≤0,1	Aquatic Chronic 2, H411  Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Resp. Sens. 1, H334 Skin Sens. 1A, H317 STOT RE 1, H372 (inhalation) EUH071  <b>See Section 16 for the full text of the H statements declared above.</b>	C ≥ 0,5%  ATE [Oral] = 400 mg/kg Skin Sens. 1, H317: C ≥ 0,001%	[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, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

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

#### Type

[1] Substance classified with a health or environmental hazard

List numbers have no legal significance.

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

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. 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.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. 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.

## SECTION 4: First aid measures

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

#### Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- 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** : 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.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

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

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst. 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 dioxide  
carbon monoxide  
nitrogen oxides  
sulfur oxides  
halogenated compounds  
metal oxide/oxides

### 5.3 Advice for firefighters

- Special protective actions for fire-fighters** : 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.
- Special protective equipment for fire-fighters** : 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

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- 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** : 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. May be harmful to the environment if released in large quantities.

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

**Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill** : 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

**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.

### 7.1 Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

**Recommendations** : Not available.

**Industrial sector specific solutions** : Not available.

## SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

### 8.1 Control parameters

#### Occupational exposure limits

##### United Kingdom: Great Britain

Product/ingredient name	Exposure limit values
hexamethylene-1,6-diisocyanate oligomer (type uretdione)	<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.
polyhexamethylene diisocyanate	<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.
3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers	<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.
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	<b>EH40/2005 WELs (United Kingdom (UK), 12/2011). 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.
maleic anhydride	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020). Inhalation sensitiser.</b> STEL: 3 mg/m <sup>3</sup> 15 minutes. TWA: 1 mg/m <sup>3</sup> 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.

#### DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
hexamethylene-1,6-diisocyanate oligomer (type uretdione)	DNEL	Short term Inhalation	0,7 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Inhalation	0,35 mg/m <sup>3</sup>	Workers	Local
polyhexamethylene diisocyanate	DNEL	Short term Inhalation	1 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Inhalation	0,5 mg/m <sup>3</sup>	Workers	Local
(bis(isopropyl)naphthalene)	DNEL	Long term Oral	2,1 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Dermal	2,1 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term	7,4 mg/m <sup>3</sup>	General	Systemic



## SECTION 8: Exposure controls/personal protection

		Inhalation		population [Consumers]	
	DNEL	Long term Dermal	4,3 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	30 mg/m <sup>3</sup>	Workers	Systemic

### PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
hexamethylene-1,6-diisocyanate oligomer (type uretdione)	Fresh water	>0,05 mg/l	-
	Marine	>0,005 mg/l	-
	Fresh water sediment	>1,33 mg/kg dwt	-
	Marine water sediment	>0,133 mg/kg dwt	-
	Soil	>0,066 mg/kg dwt	-
	Sewage Treatment Plant	55,6 mg/l	-
polyhexamethylene diisocyanate	Fresh water	0,127 mg/l	-
	Marine	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	38,28 mg/l	-
(bis(isopropyl)naphthalene)	Sewage Treatment Plant	0,15 mg/l	-
	Fresh water	0,26 µg/l	-
	Marine	0,026 µg/l	-
	Fresh water sediment	0,94 mg/kg dwt	-
	Marine water sediment	0,094 mg/kg dwt	-
	Soil	0,19 mg/kg dwt	-
hexamethylene-di-isocyanate	Fresh water	0,127 mg/l	-
	Marine	0,0127 mg/l	-
	Sediment	266700 mg/kg dwt	-
	Soil	53182 mg/kg dwt	-
	Sewage Treatment Plant	38,28 mg/l	-
	Fresh water	>0,05 mg/l	-
	Fresh water sediment	>1,33 mg/kg	-
	Marine water	>0,005 mg/l	-
	Marine water sediment	>0,133 mg/kg	-
	Sewage Treatment Plant	55,6 mg/l	-
	Soil	>0,066 mg/kg	-

### 8.2 Exposure controls

**Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

#### Individual protection measures

**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.



## SECTION 8: Exposure controls/personal protection

**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. Use eye protection according to EN 166. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. Recommended: safety glasses with side-shields. (EN 166)

### Skin protection

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.

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. > 8 hours (breakthrough time): nitrile rubber (0.5mm)

The recommendation for the type or types of glove to use when handling this product is based on information from the following source: EN374. 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** : 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. Recommended: Wear overalls or long sleeved shirt. (EN 467)

**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** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: organic vapour (Type A) and particulate filter (EN 141)

**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

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### 9.1 Information on basic physical and chemical properties

**Physical state** : Liquid.  
**Colour** : Various  
**Odour** : Odourless.  
**Odour threshold** : Not available.

## SECTION 9: Physical and chemical properties

<b>Melting point/freezing point</b>	: Not available.
<b>Initial boiling point and boiling range</b>	: Not relevant due to nature of the product.
<b>Flammability (solid, gas)</b>	: Not available.
<b>Lower and upper explosion limit</b>	: Not available.
<b>Flash point</b>	: Closed cup: 102°C (215,6°F) [ASTM D 56]
<b>Auto-ignition temperature</b>	: Not relevant due to nature of the product.
<b>Decomposition temperature</b>	: Not available.
<b>pH</b>	: Not applicable.
<b>pH : Justification</b>	: Product is non-soluble (in water).
<b>Viscosity</b>	: Dynamic: 6500 to 7000 mPa·s [DIN EN ISO 3219]
<b>Solubility(ies)</b>	:

Media	Result
cold water	Not soluble
hot water	Not soluble

**Solubility in water** : Not available.

**Partition coefficient: n-octanol/ water** : Not applicable.

**Vapour pressure** :

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
aluminium hydroxide	<0,08	<0,011				
Reaction mass of dimethyl adipate and dimethyl glutarate and dimethyl succinate	0,06	0,008	OECD 104			

**Evaporation rate** : Not available.

**Relative density** : 1,42 [calculated.]

**Density** : 1,42 g/cm<sup>3</sup> [20°C (68°F)] [DIN 53217]

**Vapour density** : Not available.

**Explosive properties** : Not available.

**Oxidising properties** : Not available.

### Particle characteristics

**Median particle size** : Not applicable.

## 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** : No specific data.

**10.5 Incompatible materials** : No specific data.

## SECTION 10: Stability and reactivity

**10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

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

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Solvent naphtha (petroleum), light arom. propylene carbonate hexamethylene-1,6-diisocyanate oligomer (type uretdione)	LD50 Oral	Rat	8400 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	18500 mg/m <sup>3</sup>	1 hours
	LC50 Inhalation Dusts and mists	Rat	0,158 mg/l	4 hours
polyhexamethylene diisocyanate	LD50 Oral	Rat	>5000 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat - Female	0,39 mg/l	4 hours
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Dermal	Rat	>2000 mg/kg	-
3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers	LD50 Oral	Rat	>5000 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	>5 mg/l	4 hours
	LD50 Oral	Rat	>5000 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	>5 mg/l	4 hours
(bis(isopropyl)naphthalene)	LD50 Oral	Rat	>5000 mg/kg	-
	LC50 Inhalation Vapour	Rat	5,64 mg/l	4 hours
	LD50 Dermal	Rat	>4500 mg/kg	-
	LD50 Oral	Rat	>4000 mg/kg	-
2-ethylhexanal	LD50 Dermal	Rabbit	4135 mg/kg	-
	LD50 Oral	Rat	2600 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	0,031 mg/l	4 hours
	LD50 Oral	Rat	400 mg/kg	-
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	LD50 Dermal	Rabbit	2620 mg/kg	-
	LD50 Oral	Rat	400 mg/kg	-
maleic anhydride	LD50 Dermal	Rabbit	2620 mg/kg	-
	LD50 Oral	Rat	400 mg/kg	-

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

#### 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)
Solvent naphtha (petroleum), light arom.	8400	N/A	N/A	N/A	N/A
hexamethylene-1,6-diisocyanate oligomer (type uretdione)	N/A	N/A	N/A	N/A	0,5
polyhexamethylene diisocyanate	N/A	N/A	N/A	N/A	1,5
2-ethylhexanal	2600	4135	N/A	N/A	N/A
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	N/A	N/A	N/A	N/A	0,031
maleic anhydride	400	2620	N/A	N/A	N/A

#### Irritation/Corrosion

## SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
Solvent naphtha (petroleum), light arom. propylene carbonate	Eyes - Mild irritant	Rabbit	-	24 hours 100 microliters	-
	Eyes - Moderate irritant	Rabbit	-	60 milligrams	-
	Skin - Moderate irritant	Human	-	72 hours 100 milligrams Intermittent	-
hexamethylene-1,6-diisocyanate oligomer (type uretdione)	Skin - Moderate irritant	Rabbit	-	500 milligrams	-
	Eyes - Cornea opacity	Rabbit	1	-	-
	Skin - Oedema	Rabbit	1	4 hours	-
polyhexamethylene diisocyanate	Eyes - Cornea opacity	Rabbit	1	-	-
	Eyes - Moderate irritant	Rabbit	-	100 milligrams	-
	Skin - Oedema	Rabbit	1	4 hours	-
3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers	Skin - Moderate irritant	Rabbit	-	500 milligrams	-
	Eyes - Cornea opacity	Rabbit	1	-	-
	Skin - Oedema	Rabbit	0	-	-
(bis(isopropyl)naphthalene)	Eyes - Cornea opacity	Rabbit	0	-	-
	Skin - Oedema	Rabbit	0	-	-
	Skin - Mild irritant	Rabbit	-	425 milligrams	-
2-ethylhexanal	Eyes - Severe irritant	Rabbit	-	1 Percent	-

### Conclusion/Summary

- Skin** : Based on available data, the classification criteria are not met.
- Eyes** : Based on available data, the classification criteria are not met.
- Respiratory** : Based on available data, the classification criteria are not met.

### Sensitisation

Product/ingredient name	Route of exposure	Species	Result
hexamethylene-1,6-diisocyanate oligomer (type uretdione) polyhexamethylene diisocyanate	skin	Guinea pig	Sensitising
	Respiratory	Guinea pig	Not sensitizing
	skin	Guinea pig	Sensitising
3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers	skin	Mouse	Sensitising
	skin	Guinea pig	Sensitising
	skin	Guinea pig	Sensitising
(bis(isopropyl)naphthalene)	skin	Mouse	Sensitising
	skin	Rabbit	Sensitising
	skin	Guinea pig	Not sensitizing

### Conclusion/Summary

- Skin** : May cause an allergic skin reaction.
- Respiratory** : Based on available data, the classification criteria are not met.

### Mutagenicity

## SECTION 11: Toxicological information

Product/ingredient name	Test	Experiment	Result
hexamethylene-1,6-diisocyanate oligomer (type uretdione)	OECD 476	Subject: Mammalian-Animal	Positive
polyhexamethylene diisocyanate	OECD 471	Subject: Bacteria	Negative
	OECD 471	Subject: Bacteria	Negative
3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers	OECD 476	Subject: Mammalian-Animal	Negative
	OECD 471	Experiment: In vitro Subject: Bacteria	Negative
(bis(isopropyl)naphthalene)	OECD 473	Experiment: In vitro Subject: Mammalian-Animal	Negative
	OECD 471	Experiment: In vitro Subject: Bacteria	Negative
	OECD 473+476	Experiment: In vitro Subject: Mammalian-Animal	Negative

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

### Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
(bis(isopropyl)naphthalene)	Negative - Route of exposure unreported - TD	Rat	-	-

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

### Reproductive toxicity

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

### Teratogenicity

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

### Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Solvent naphtha (petroleum), light arom.	Category 3	-	Respiratory tract irritation
hexamethylene-1,6-diisocyanate oligomer (type uretdione)	Category 3	-	Narcotic effects
polyhexamethylene diisocyanate	Category 3	-	Respiratory tract irritation
	Category 3	-	Respiratory tract irritation
3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers	Category 3	-	Respiratory tract irritation
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	Category 3	-	Respiratory tract irritation

### Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
maleic anhydride	Category 1	inhalation	-

### Aspiration hazard

Product/ingredient name	Result
Solvent naphtha (petroleum), light arom. (bis(isopropyl)naphthalene)	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1

**Information on likely routes of exposure** : Not available.

## SECTION 11: Toxicological information

### Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : May cause an allergic skin reaction.  
**Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : No specific data.  
**Inhalation** : No specific data.  
**Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
**Ingestion** : No specific data.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

#### Short term exposure

- Potential immediate effects** : Not available.  
**Potential delayed effects** : Not available.

#### Long term exposure

- Potential immediate effects** : Not available.  
**Potential delayed effects** : Not available.

### Potential chronic health effects

Product/ingredient name	Result	Species	Dose	Exposure
hexamethylene-1,6-diisocyanate oligomer (type uretdione) polyhexamethylene diisocyanate	Sub-acute NOAEL Inhalation Dusts and mists	Rat	0,41 mg/m <sup>3</sup>	6 hours; 5 days per week Intermittent
	Sub-chronic LC50 Inhalation Dusts and mists	Rat	14,7 mg/m <sup>3</sup>	6 hours; 5 days per week Intermittent
	Sub-acute LC50 Inhalation Dusts and mists	Rat	89,9 mg/m <sup>3</sup>	6 hours; 5 days per week Intermittent
	Sub-acute LCLo Inhalation Dusts and mists	Rat	4,3 mg/m <sup>3</sup>	6 hours; 5 days per week Intermittent
	Chronic NOAEL Inhalation Dusts and mists	Rat	3,3 mg/m <sup>3</sup>	6 hours; 5 days per week Intermittent
(bis(isopropyl)naphthalene)	Chronic NOAEL Oral	Rat	170 mg/kg	6 months

- Conclusion/Summary** : Based on available data, the classification criteria are not met.  
**General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.  
**Carcinogenicity** : No known significant effects or critical hazards.  
**Mutagenicity** : No known significant effects or critical hazards.  
**Reproductive toxicity** : No known significant effects or critical hazards.

### 11.2 Information on other hazards

#### 11.2.1 Endocrine disrupting properties

Not available.

#### 11.2.2 Other information

## SECTION 11: Toxicological information

Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
hexamethylene-1,6-diisocyanate oligomer (type uretdione)	Acute EC50 5560 mg/l	Bacteria	3 hours
	Acute EC50 >100 mg/l	Daphnia spec.	48 hours
	Acute IC50 >1000 mg/l	Algae - Scenedesmus subspicatus	72 hours
polyhexamethylene diisocyanate	Acute LC50 >100 mg/l	Fish	96 hours
	Acute EC50 >10000 mg/l	Bacteria	3 hours
	Acute EC50 >100 mg/l	Daphnia spec.	48 hours
	Acute IC50 >1000 mg/l	Algae - Scenedesmus subspicatus	72 hours
(bis(isopropyl)naphthalene)	Acute LC50 >100 mg/l	Fish	96 hours
	Acute EC10 >0,15 mg/l	Algae	72 hours
	Acute EC10 >0,16 mg/l	Daphnia spec.	48 hours
	Acute LC10 >0,5 mg/l	Fish	96 hours
	Acute NOEC >0,013 mg/l	Daphnia spec.	21 days
maleic anhydride	Acute LC50 230000 µg/l Fresh water	Fish - Gambusia affinis - Adult	96 hours

**Conclusion/Summary** : Harmful to aquatic life with long lasting effects.

### 12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
propylene carbonate	OECD 301B	83,5 to 87,7 % - 29 days	-	-
hexamethylene-1,6-diisocyanate oligomer (type uretdione)	OECD 302C	18 % - Not readily - 28 days	-	-
	OECD 301C	1 % - Not readily - 28 days	-	-
	-	1 % - Not readily - 21 days	-	-
polyhexamethylene diisocyanate	OECD 301C	2 % - Not readily - 28 days	-	-
3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers	OECD 301F	0 % - Not readily - 28 days	-	-

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Solvent naphtha (petroleum), light arom.	-	-	Readily
hexamethylene-1,6-diisocyanate oligomer (type uretdione)	Fresh water 0,25 days, 23°C	50%; 0.03 day(s)	Not readily
polyhexamethylene diisocyanate	Fresh water 0,32 days, 23°C	50%; 0.49 day(s)	Not readily
3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers	-	-	Not readily
(bis(isopropyl)naphthalene)	Fresh water 2,5 days, 20°C	>70%; < 28 day(s)	Readily
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	-	-	Not readily



## SECTION 12: Ecological information

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Solvent naphtha (petroleum), light arom.	-	10 to 2500	high
propylene carbonate	-0,41	-	low
hexamethylene-1,6-diisocyanate oligomer (type uretdione)	5,54	367,7	low
polyhexamethylene diisocyanate	5,54	367,7	low
(bis(isopropyl)naphthalene) 2-ethylhexanal	6,081	1800 to 6400	high
3-isocyanatomethyl-	3,07	-	low
3,5,5-trimethylcyclohexyl isocyanate	0,99	-	low
maleic anhydride	-2,78	-	low

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Non-volatile.

### 12.5 Results of PBT and vPvB assessment

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

### 12.6 Endocrine disrupting properties

Not available.

### 12.7 Other adverse effects

No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance.

### 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 code	Waste designation
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances

**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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.

**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 IMO instruments** : Not available.

## SECTION 15: Regulatory information

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

Other EU regulations

**VOC for Ready-for-Use Mixture** : 2004/42/EC - IIA/i: 500g/l (2010). <= 160g/l VOC.

**Industrial emissions (integrated pollution prevention and control) - Air** : Not listed

**Industrial emissions (integrated pollution prevention and control) - Water** : Not listed

United Kingdom: Great Britain

UK (GB) /REACH

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Ozone depleting substances

Not listed.

Prior Informed Consent (PIC)

Not listed.

## SECTION 15: Regulatory information

### Persistent Organic Pollutants

Not listed.

**Aerosol dispensers** :

### Seveso Directive

This product is not controlled under the Seveso Directive.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : As from August 24 2023 adequate training is required before industrial or professional use.

### International regulations

#### Stockholm Convention on Persistent Organic Pollutants

List name	Ingredient name	Status
Not listed.		

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

List name	Ingredient name	Status
Not listed.		

**CN code** : 3208 90 91 00

### Inventory list

<b>Australia</b>	: At least one component is not listed.
<b>Canada</b>	: Not determined.
<b>China</b>	: At least one component is not listed.
<b>Eurasian Economic Union</b>	: <b>Russian Federation inventory</b> : Not determined.
<b>Japan</b>	: <b>Japan inventory (CSCL)</b> : At least one component is not listed. <b>Japan inventory (ISHL)</b> : At least one component is not listed.
<b>New Zealand</b>	: At least one component is not listed.
<b>Philippines</b>	: At least one component is not listed.
<b>Republic of Korea</b>	: At least one component is not listed.
<b>Taiwan</b>	: All components are listed or exempted.
<b>Thailand</b>	: Not determined.
<b>Turkey</b>	: Not determined.
<b>United States</b>	: Not determined.
<b>Viet Nam</b>	: Not determined.

**15.2 Chemical safety assessment** : This product contains substances for which Chemical Safety Assessments are still required.

## 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  
N/A = Not available

## SECTION 16: Other information

PBT = Persistent, Bioaccumulative and Toxic  
PNEC = Predicted No Effect Concentration  
RRN = REACH Registration Number  
SGG = Segregation Group  
vPvB = Very Persistent and Very Bioaccumulative

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

Classification	Justification
Skin Sens. 1, H317	Expert judgment
Aquatic Chronic 3, H412	Expert judgment

### Full text of abbreviated H statements

#### United Kingdom: Great Britain

#### Full text of abbreviated H statements

H226 Flammable liquid and vapour.  
H302 Harmful if swallowed.  
H304 May be fatal if swallowed and enters airways.  
H314 Causes severe skin burns and eye damage.  
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.  
H336 May cause drowsiness or dizziness.  
H361 Suspected of damaging fertility or the unborn child.  
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.  
H372 Causes damage to organs through prolonged or repeated exposure.  
H410 Very toxic to aquatic life with long lasting effects.  
H411 Toxic to aquatic life with long lasting effects.  
H412 Harmful to aquatic life with long lasting effects.  
H413 May cause long lasting harmful effects to aquatic life.  
EUH071 Corrosive to the respiratory tract.

#### Full text of classifications [CLP/GHS]

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

## SECTION 16: Other information

STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3
-----------	---

**Date of printing** : 17/09/2022

**Date of issue/ Date of revision** : 16/09/2022

**Date of previous issue** : 16/09/2022

**Version** : 4

### Notice to reader

**IMPORTANT NOTE:** The information in this Safety Data Sheet is based on the present state of knowledge and current legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications. The information contained in this data sheet (as may be amended from time to time) is not intended to be exhaustive and is presented in good faith and believed to be correct as of the date on which it is prepared. It is the user's responsibility to verify that this data sheet is current prior to using the product to which it relates. Persons using the information must make their own determinations as to the suitability of the relevant product for their purposes prior to use. Where those purposes are other than as specifically recommended in this safety data sheet, then the user uses the product at their own risk.

**MANUFACTURER'S DISCLAIMER:** the conditions, methods and factors affecting the handling, storage, application, use and disposal of the product are not under the control and knowledge of the manufacturer. Therefore the manufacturer does not assume responsibility for any adverse events which may occur in the handling, storage, application, use, misuse or disposal of the product and, so far as permitted by applicable law, the manufacturer expressly disclaims liability for any and all loss, damages and/or expenses arising out of or in any way connected to the storage, handling, use or disposal of the product. Safe handling, storage, use and disposal are the responsibility of the users. Users must comply with all applicable health and safety laws.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.