

Safety Data Sheet according to Regulation (EC) No 1907/2006

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LOCTITE UK 1351B25/5452

SDS No. : 375418 V007.0 Revision: 06.04.2018 printing date: 30.08.2020 Replaces version from: 21.11.2016

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

1.1. Product identifier LOCTITE UK 1351B25/5452

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

Intended use:

2-Component polyurethane adhesive

1.3. Details of the supplier of the safety data sheet Henkel Ltd

Adhesives Wood Lane End HP2 4RQ Hemel Hempstead

Great Britain

Phone:+44 (1442) 278000Fax-no.:+44 (1442) 278071

ua-productsafety.uk@henkel.com

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

The substance or mixture is not hazardous according to Regulation (EC) No 1272/2008 (CLP).

2.2. Label elements

Label elements (CLP):

The substance or mixture is not hazardous according to Regulation (EC) No 1272/2008 (CLP).

Supplemental information EUH210 Safety data sheet available on request.

2.3. Other hazards

None if used properly.

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General chemical description: Polyurethane adhesive Base substances of preparation: Polyol

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Polypropylene glycol 25322-69-4	500-039-8	5-< 10 %	Acute Tox. 4 H302

For full text of the H - statements and other abbreviations see section 16 "Other information". Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Move to fresh air, consult doctor if complaint persists.

Skin contact:

Rinse with running water and soap. Apply replenishing cream. Change all contaminated clothing.

Eye contact:

Rinse immediately with plenty of running water (for 10 minutes). Seek medical attention if necessary.

Ingestion:

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

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

No data available.

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

See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: All common extinguishing agents are suitable.

Extinguishing media which must not be used for safety reasons: High pressure waterjet

5.2. Special hazards arising from the substance or mixture In case of fire toxic gases can be released.

5.3. Advice for firefighters

Wear self-contained breathing apparatus. Wear protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective equipment.

Danger of slipping on spilled product.

6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up

Remove with liquid-absorbing material (sand, peat, sawdust). Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Hygiene measures:

Do not eat, drink or smoke while working. Wash hands before work breaks and after finishing work.

7.2. Conditions for safe storage, including any incompatibilities

Ensure good ventilation/extraction. Store in sealed original container protected against moisture. > + 15 °C < +30°C

7.3. Specific end use(s)2-Component polyurethane adhesive

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for

Great Britain

Ingredient [Regulated substance]	ррт	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Calcium carbonate 471-34-1 [CALCIUM CARBONATE, INHALABLE DUST]		10	Time Weighted Average (TWA):		EH40 WEL
Calcium carbonate 471-34-1 [CALCIUM CARBONATE, RESPIRABLE DUST]		4	Time Weighted Average (TWA):		EH40 WEL
Calcium carbonate 471-34-1 [LIMESTONE, RESPIRABLE MARBLE, RESPIRABLE]		4	Time Weighted Average (TWA):		EH40 WEL
Calcium carbonate 471-34-1 [LIMESTONE, TOTAL INHALABLE MARBLE, TOTAL INHALABLE]		10	Time Weighted Average (TWA):		EH40 WEL
Zeolites 68989-22-0 [ALUMINIUM OXIDES, INHALABLE DUST]		10	Time Weighted Average (TWA):		EH40 WEL
Zeolites 68989-22-0 [ALUMINIUM OXIDES, RESPIRABLE DUST]		4	Time Weighted Average (TWA):		EH40 WEL

Occupational Exposure Limits

Valid for

Ireland

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Calcium carbonate 471-34-1 [CALCIUM CARBONATE, RESPIRABLE DUST]		4	Time Weighted Average (TWA):		IR_OEL
Calcium carbonate 471-34-1 [CALCIUM CARBONATE, TOTAL INHALABLE DUST]		10	Time Weighted Average (TWA):		IR_OEL

Biological Exposure Indices: None

8.2. Exposure controls:

Engineering controls: Ensure good ventilation/extraction.

Respiratory protection:

In case of aerosol formation, we recommend wearing of appropriate respiratory protection equipment with ABEK P2 filter (EN 14387).

This recommendation should be matched to local conditions.

Hand protection:

Chemical-resistant protective gloves (EN 374). Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374): Polychloroprene (CR; ≥ 1 mm thickness) or natural rubber (NR; ≥ 1 mm thickness) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Polychloroprene (CR; ≥ 1 mm thickness) or natural rubber (NR; ≥ 1 mm thickness) This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection: Protective goggles Protective eye equipment should conform to EN166.

Skin protection: Wear protective equipment. Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

Use only personal protection that's CE-labelled according to Directive 89/686/EEC (Europe) or to Regulation No. 819 of 19 August 1994 (Norway).

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	paste
Appearance	paste
	beige
Odor	characteristic
Odour threshold	No data available / Not applicable
odour threshold	No data available / Not applicable
рН	Not applicable
Melting point	No data available / Not applicable
Solidification temperature	No data available / Not applicable
Initial boiling point	No data available / Not applicable
Flash point	; no methodNo flash point up to 100 °C
Evaporation rate	No data available / Not applicable
Flammability	No data available / Not applicable
Explosive limits	No data available / Not applicable
Vapour pressure	No data available / Not applicable
Relative vapour density:	No data available / Not applicable
Density	1,42 - 1,5 g/cm3
(20 °C (68 °F))	
Bulk density	No data available / Not applicable
Solubility	No data available / Not applicable
Solubility (qualitative)	Not miscible
(20 °C (68 °F); Solvent: Water)	
Partition coefficient: n-octanol/water	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Decomposition temperature	No data available / Not applicable
Viscosity	420.000 - 480.000 mPa.s
(Brookfield; 20 °C (68 °F); speed of rotation: 5	
min-1; Spindle No: 7)	
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Oxidising properties	No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

None if used for intended purpose.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

None if used for intended purpose.

10.5. Incompatible materials

None if used properly.

10.6. Hazardous decomposition products

No decomposition if used according to specifications.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Species	Method
CAS-No.	type			
Polypropylene glycol	LD50	1.000 - 2.000	rat	not specified
25322-69-4		mg/kg		

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
Polypropylene glycol 25322-69-4	LD50	> 3.000 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)

Acute inhalative toxicity:

No data available.

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Polypropylene glycol 25322-69-4	not irritating	24 h	rabbit	EPA OPPTS 870.2500 (Acute Dermal Irritation)

Serious eye damage/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Polypropylene glycol 25322-69-4	not irritating		rabbit	EU Method B.5 (Acute Toxicity: Eye Irritation / Corrosion)

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Species	Method
Polypropylene glycol 25322-69-4	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances	Result	Type of study /	Metabolic	Species	Method
CAS-No.		Route of	activation /		
		administration	Exposure time		
Polypropylene glycol	negative	bacterial reverse	with and without		OECD Guideline 471
25322-69-4		mutation assay (e.g			(Bacterial Reverse Mutation
		Ames test)			Assay)
Polypropylene glycol	negative	in vitro mammalian	with and without		OECD Guideline 473 (In vitro
25322-69-4		chromosome			Mammalian Chromosome
		aberration test			Aberration Test)
Polypropylene glycol	negative	mammalian cell	with and without		OECD Guideline 476 (In vitro
25322-69-4		gene mutation assay			Mammalian Cell Gene
					Mutation Test)

Carcinogenicity

No data available.

Reproductive toxicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Test type	Route of application	Species	Method
Polypropylene glycol 25322-69-4	NOAEL P >= 1.000 mg/kg	screening	oral: gavage	rat	OECD Guideline 421 (Reproduction /
	NOAEL F1 >= 1.000 mg/kg				Developmental Toxicity Screening Test)

STOT-single exposure:

No data available.

STOT-repeated exposure::

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
Polypropylene glycol 25322-69-4	NOAEL >= 1.000 mg/kg	oral: gavage	31 d daily	rat	OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)

Aspiration hazard:

No data available.

SECTION 12: Ecological information

General ecological information:

Do not empty into drains, soil or bodies of water.

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Polypropylene glycol	LC50	> 100 mg/l	96 h	Pimephales promelas	not specified
25322-69-4					

Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Polypropylene glycol 25322-69-4	EC50	> 100 mg/l	48 h	Daphnia magna	not specified

Chronic toxicity to aquatic invertebrates

No data available.

Toxicity (Algae):

No data available.

Toxicity to microorganisms

No data available.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

In consultation with the responsible local authority, must be subjected to special treatment.

Waste code

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you. 080409

SECTION 14: Transport information 14.1. UN number Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR. 14.2. UN proper shipping name Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR. 14.3. Transport hazard class(es) Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR. 14.4. **Packing group** Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR. 14.5. **Environmental hazards** Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR. 14.6. Special precautions for user Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR. 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture VOC content 0 %

VOC content (VOCV 814.018 VOC regulation CH)

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text

of all abbreviations indicated by codes in this safety data sheet are as follows:

H302 Harmful if swallowed.

Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.



Safety Data Sheet according to Regulation (EC) No 1907/2006

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LOCTITE UK 1351B25/5452

SDS No. : 315035 V007.0 Revision: 06.04.2018 printing date: 30.08.2020 Replaces version from: 08.08.2017

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

1.1. Product identifier

LOCTITE UK 1351B25/5452

Contains:

Diphenylmethane diisocyanate, isomers and homologues

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

Intended use:

2-Component polyurethane adhesive

1.3. Details of the supplier of the safety data sheet

Henkel Ltd Adhesives Wood Lane End HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 (1442) 278000 Fax-no.: +44 (1442) 278071

ua-productsafety.uk@henkel.com

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):
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16	issincation (CLI).	
	Acute toxicity	Category 4
	H332 Harmful if inhaled.	
	Route of Exposure: Inhalation	
	Skin irritation	Category 2
	H315 Causes skin irritation.	
	Serious eye irritation	Category 2
	H319 Causes serious eye irritation.	
	Respiratory sensitizer	Category 1
	H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.	
	Skin sensitizer	Category 1
	H317 May cause an allergic skin reaction.	
	Carcinogenicity	Category 2
	H351 Suspected of causing cancer.	
	Specific target organ toxicity - single exposure	Category 3
	H335 May cause respiratory irritation.	
	Specific target organ toxicity - repeated exposure	Category 2
	H373 May cause damage to organs through prolonged or repeated exposure.	

2.2. Label elements Label elements (CLP): Hazard pictogram: Signal word: Danger Hazard statement: H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H332 Harmful if inhaled. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation. H351 Suspected of causing cancer. H373 May cause damage to organs through prolonged or repeated exposure. P201 Obtain special instructions before use. **Precautionary statement:** Prevention P260 Do not breathe vapours. P280 Wear protective gloves/protective clothing/eye protection/face protection. **Precautionary statement:** P308+P313 IF exposed or concerned: Get medical advice/attention. Response

2.3. Other hazards

Persons suffering from allergic reactions to isocyanates should avoid contact with the product. Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General chemical description: Hardening component of a 2-component PU adhesive Base substances of preparation:

Isocyanate

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Diphenylmethane diisocyanate, isomers and homologues 9016-87-9		40- 60 %	Carc. 2 H351 Acute Tox. 4; Inhalation H332 STOT RE 2 H373 Eye Irrit. 2 H319 STOT SE 3 H335 Skin Irrit. 2 H315 Resp. Sens. 1 H334 Skin Sens. 1 H317
4,4'- methylenediphenyl diisocyanate 101-68-8	202-966-0 01-2119457014-47	40- 60 %	Carc. 2 H351 Acute Tox. 4; Inhalation H332 STOT RE 2 H373 Eye Irrit. 2 H319 STOT SE 3 H335 Skin Irrit. 2 H315 Resp. Sens. 1 H334 Skin Sens. 1B H317
o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1	227-534-9 01-2119480143-45	1- < 5 %	STOT RE 2 H373 Carc. 2 H351 Acute Tox. 4; Inhalation H332 Eye Irrit. 2 H319 STOT SE 3 H335 Skin Irrit. 2 H315 Skin Sens. 1 H317 Resp. Sens. 1 H334
2,2'-Methylenediphenyl diisocyanate 2536-05-2	219-799-4 01-2119927323-43	0,1- < 1 %	STOT RE 2 H373 Carc. 2 H351 Acute Tox. 4; Inhalation H332 Eye Irrit. 2 H319 STOT SE 3 H335 Skin Irrit. 2 H315 Resp. Sens. 1 H334 Skin Sens. 1 H317

For full text of the H - statements and other abbreviations see section 16 "Other information". Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

Symptoms of poisoning may occur even after several hours, continue medical observation for at least 48 hours after the accident.

Inhalation: Fresh air, oxygen supply, warmth; seek specialist medical attention. Delayed effects possible after inhalation.

Skin contact: IF ON SKIN: Wash with plenty of soap and water.

In case of adverse health effects seek medical advice.

Eye contact:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion:

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

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

RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

SKIN: Redness, inflammation.

EYE: Irritation, conjunctivitis.

SKIN: Rash, Urticaria.

4.3. Indication of any immediate medical attention and special treatment needed See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: All common extinguishing agents are suitable.

Extinguishing media which must not be used for safety reasons: High pressure waterjet

5.2. Special hazards arising from the substance or mixture In case of fire toxic gases can be released.

5.3. Advice for firefighters

Wear protective equipment. Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency proceduresWear protective equipment.Avoid contact with skin and eyes.Keep unprotected persons away.Danger of slipping on spilled product.

6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up

Remove with liquid-absorbing material (sand, peat, sawdust). Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Hygiene measures:

Do not eat, drink or smoke while working. Wash hands before work breaks and after finishing work. Take off contaminated clothing and wash before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Ensure good ventilation/extraction. > + 15 °C Avoid moisture. < + 30 °C Store in sealed original container.

7.3. Specific end use(s)

2-Component polyurethane adhesive

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for

Great Britain

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
4,4'-Methylenediphenyl diisocyanate 9016-87-9 [ISOCYANATES, ALL (AS -NCO)]		0,07	Short Term Exposure Limit (STEL):		EH40 WEL
4,4'-Methylenediphenyl diisocyanate 9016-87-9 [ISOCYANATES, ALL (AS -NCO)]		0,02	Time Weighted Average (TWA):		EH40 WEL
4,4'-Methylenediphenyl diisocyanate 101-68-8 [ISOCYANATES, ALL (AS -NCO)]		0,07	Short Term Exposure Limit (STEL):		EH40 WEL
4,4'-Methylenediphenyl diisocyanate 101-68-8 [ISOCYANATES, ALL (AS -NCO)]		0,02	Time Weighted Average (TWA):		EH40 WEL
o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 [ISOCYANATES, ALL (AS -NCO)]		0,07	Short Term Exposure Limit (STEL):		EH40 WEL
o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 [ISOCYANATES, ALL (AS -NCO)]		0,02	Time Weighted Average (TWA):		EH40 WEL
Zeolites 68989-22-0 [ALUMINIUM OXIDES, INHALABLE DUST]		10	Time Weighted Average (TWA):		EH40 WEL
Zeolites 68989-22-0 [ALUMINIUM OXIDES, RESPIRABLE DUST]		4	Time Weighted Average (TWA):		EH40 WEL
2,2'-Methylenediphenyl diisocyanate 2536-05-2 [ISOCYANATES, ALL (AS -NCO)]		0,07	Short Term Exposure Limit (STEL):		EH40 WEL
2,2'-Methylenediphenyl diisocyanate 2536-05-2 [ISOCYANATES, ALL (AS -NCO)]		0,02	Time Weighted Average (TWA):		EH40 WEL

Occupational Exposure Limits

Valid for

Ireland

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
4,4'-Methylenediphenyl diisocyanate 9016-87-9 [ISOCYANATES (ALL, AS -NCO)]		0,02	Time Weighted Average (TWA):		IR_OEL
4,4'-Methylenediphenyl diisocyanate 9016-87-9 [ISOCYANATES (ALL, AS -NCO)]		0,07	Short Term Exposure Limit (STEL):		IR_OEL
4,4'-Methylenediphenyl diisocyanate 101-68-8 [4,4'-METHYLENE-DIPHENYL DIISOCYANATE (AS -NCO)]		0,02	Time Weighted Average (TWA):		IR_OEL
4,4'-Methylenediphenyl diisocyanate 101-68-8 [4,4'-METHYLENE-DIPHENYL DIISOCYANATE (AS -NCO)]		0,07	Short Term Exposure Limit (STEL):		IR_OEL
o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 [ISOCYANATES (ALL, AS -NCO)]		0,02	Time Weighted Average (TWA):		IR_OEL
o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1 [ISOCYANATES (ALL, AS -NCO)]		0,07	Short Term Exposure Limit (STEL):		IR_OEL

2,2'-Methylenediphenyl diisocyanate 2536-05-2 [ISOCYANATES (ALL, AS -NCO)]	0,02	Time Weighted Average (TWA):	IR_OEL
2,2'-Methylenediphenyl diisocyanate 2536-05-2 [ISOCYANATES (ALL, AS -NCO)]	0,07	Short Term Exposure Limit (STEL):	IR_OEL

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment				Value			
	•	•	mg/l	ppm	mg/kg	others		
4,4'- methylenediphenyl diisocyanate 101-68-8	aqua (freshwater)		1 mg/l					
4,4'- methylenediphenyl diisocyanate 101-68-8	aqua (marine water)		0,1 mg/l					
4,4'- methylenediphenyl diisocyanate 101-68-8	soil				1 mg/kg			
4,4'- methylenediphenyl diisocyanate 101-68-8	sewage treatment plant (STP)		1 mg/l					
4,4'- methylenediphenyl diisocyanate 101-68-8	Air							
4,4'- methylenediphenyl diisocyanate 101-68-8	Predator							
4,4'- methylenediphenyl diisocyanate 101-68-8	Aquatic (intermit. releases)		10 mg/l					
o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1	aqua (marine water)		> 0,1 mg/l					
o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1	sewage treatment plant (STP)		> 1 mg/l					
o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1	aqua (intermittent releases)		10 mg/l					
o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1	aqua (freshwater)		> 1 mg/l					
o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1	soil				> 1 mg/kg			
2,2'-Methylenediphenyl diisocyanate 2536-05-2	aqua (freshwater)		> 1 mg/l					
2,2'-Methylenediphenyl diisocyanate 2536-05-2	aqua (marine water)		> 0,1 mg/l					
2,2'-Methylenediphenyl diisocyanate 2536-05-2	soil				> 1 mg/kg			
2,2'-Methylenediphenyl diisocyanate 2536-05-2	sewage treatment plant (STP)		> 1 mg/l					

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
4,4'- methylenediphenyl diisocyanate 101-68-8	Workers	inhalation	Long term exposure - local effects		0,05 mg/m3	
4,4'- methylenediphenyl diisocyanate 101-68-8	Workers	inhalation	Acute/short term exposure - local effects		0,1 mg/m3	
4,4'- methylenediphenyl diisocyanate 101-68-8	General population	inhalation	Long term exposure - local effects		0,025 mg/m3	
4,4'- methylenediphenyl diisocyanate 101-68-8	General population	inhalation	Acute/short term exposure - local effects		0,05 mg/m3	
o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1	Workers	dermal	Acute/short term exposure - systemic effects		50 mg/kg	
o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1	Workers	inhalation	Acute/short term exposure - systemic effects		0,1 mg/m3	
o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1	Workers	dermal	Acute/short term exposure - local effects		28,7 mg/cm2	
o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1	Workers	inhalation	Acute/short term exposure - local effects		0,1 mg/m3	
o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1	Workers	inhalation	Long term exposure - systemic effects		0,05 mg/m3	
o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1	Workers	inhalation	Long term exposure - local effects		0,05 mg/m3	
o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1	General population	dermal	Acute/short term exposure - systemic effects		25 mg/kg	
o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1	General population	inhalation	Acute/short term exposure - systemic effects		0,05 mg/m3	
o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1	General population	oral	Acute/short term exposure - systemic effects		20 mg/kg	
o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1	General population	dermal	Acute/short term exposure - local effects		17,2 mg/cm2	
o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1	General population	inhalation	Acute/short term exposure - local effects		0,05 mg/m3	
o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1	General population	inhalation	Long term exposure - systemic effects		0,025 mg/m3	
o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1	General population	inhalation	Long term exposure - local effects		0,025 mg/m3	
2,2'-Methylenediphenyl diisocyanate 2536-05-2	Workers	dermal	Acute/short term exposure - systemic effects		50 mg/kg	
2,2'-Methylenediphenyl diisocyanate 2536-05-2	Workers	Inhalation	Acute/short term exposure - systemic effects		0,1 mg/m3	
2,2'-Methylenediphenyl diisocyanate 2536-05-2	Workers	dermal	Acute/short term exposure - local effects		28,7 mg/cm2	
2,2'-Methylenediphenyl diisocyanate 2536-05-2	Workers	Inhalation	Acute/short term exposure - local effects		0,1 mg/m3	
2,2'-Methylenediphenyl diisocyanate 2536-05-2	Workers	Inhalation	Long term exposure - systemic effects		0,05 mg/m3	
2,2'-Methylenediphenyl diisocyanate 2536-05-2	Workers	Inhalation	Long term exposure - local effects		0,05 mg/m3	

2,2'-Methylenediphenyl diisocyanate 2536-05-2	General population	dermal	Acute/short term exposure - systemic effects	25 mg/kg	
2,2'-Methylenediphenyl diisocyanate 2536-05-2	General population	Inhalation	Acute/short term exposure - systemic effects	0,05 mg/m3	
2,2'-Methylenediphenyl diisocyanate 2536-05-2	General population	oral	Acute/short term exposure - systemic effects	20 mg/kg	
2,2'-Methylenediphenyl diisocyanate 2536-05-2	General population	dermal	Acute/short term exposure - local effects	17,2 mg/cm2	
2,2'-Methylenediphenyl diisocyanate 2536-05-2	General population	Inhalation	Acute/short term exposure - local effects	0,05 mg/m3	
2,2'-Methylenediphenyl diisocyanate 2536-05-2	General population	Inhalation	Long term exposure - systemic effects	0,025 mg/m3	
2,2'-Methylenediphenyl diisocyanate 2536-05-2	General population	Inhalation	Long term exposure - local effects	0,025 mg/m3	

Biological Exposure Indices:

None

8.2. Exposure controls:

Engineering controls: Use only in well ventilated areas. Draw off vapors directly at the point of generation or release.

Respiratory protection: Suitable breathing mask when there is inadequate ventilation. Filter: B - P3

Hand protection:

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):

nitrile rubber (NBR; >= 0.4 mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):

nitrile rubber (NBR; >= 0.4 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection: Goggles which can be tightly sealed. Protective eye equipment should conform to EN166.

Skin protection: Wear protective equipment. Protective clothing that covers arms and legs. Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

Use only personal protection that's CE-labelled according to Directive 89/686/EEC (Europe) or to Regulation No. 819 of 19 August 1994 (Norway).

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

SECTION 9: Physical and chemical properties

characteristic

No data available / Not applicable

paste pasty green

9.1. Information on basic physical and chemical properties Appearance paste

Odor Odour threshold

pН Not applicable Melting point No data available / Not applicable Solidification temperature No data available / Not applicable > 200 °C (> 392 °F) Initial boiling point 178 °C (352.4 °F) Flash point Evaporation rate No data available / Not applicable Flammability No data available / Not applicable Explosive limits No data available / Not applicable Vapour pressure 12,0000000 hPaNot available. (50,0 °C (122 °F)) No data available / Not applicable Relative vapour density: 1,21 - 1,26 g/cm3 Density (20 °C (68 °F)) Bulk density No data available / Not applicable Solubility No data available / Not applicable Solubility (qualitative) Not miscible or difficult to mix (20 °C (68 °F); Solvent: Water) Partition coefficient: n-octanol/water No data available / Not applicable No data available / Not applicable Auto-ignition temperature Decomposition temperature No data available / Not applicable 400 - 550 pa.s Viscosity (Brookfield; 20 °C (68 °F); speed of rotation: 5 min-1; Spindle No: 7; Conc.: 100 % product) Viscosity (kinematic) No data available / Not applicable No data available / Not applicable Explosive properties Oxidising properties No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

Reaction with water, alcohols, amines. Reacts with water: Pressure built up in closed vessel (CO2).

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid Humidity

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

At higher temperatures isocyanate may be released. Carbon dioxide is generated under contact with moisture, leading to pressure in the cans. Danger of cans bursting!

SECTION 11: Toxicological information

General toxicological information:

Persons suffering from allergic reactions to isocyanates should avoid contact with the product.

11.1. Information on toxicological effects

Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Species	Method
CAS-No.	type			
Diphenylmethane diisocyanate, isomers and homologues 9016-87-9	LD50	> 10.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
4,4'- methylenediphenyl diisocyanate 101-68-8	LD50	> 2.000 mg/kg	rat	other guideline:
o-(p- Isocyanatobenzyl)phenyl isocyanate 5873-54-1	LD50	> 2.000 mg/kg	rat	EU Method B.1 (Acute Toxicity (Oral))
2,2'-Methylenediphenyl diisocyanate 2536-05-2	LD50	> 2.000 mg/kg	rat	EU Method B.1 (Acute Toxicity (Oral))

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Species	Method
CAS-No.	type			
Diphenylmethane diisocyanate, isomers and homologues 9016-87-9	LD50	> 9.400 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
4,4'- methylenediphenyl diisocyanate 101-68-8	LD50	> 9.400 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
o-(p- Isocyanatobenzyl)phenyl isocyanate 5873-54-1	LD50	> 9.400 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
2,2'-Methylenediphenyl diisocyanate 2536-05-2	LD50	> 9.400 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)

Acute inhalative toxicity:

No data available.

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
4,4'- methylenediphenyl diisocyanate 101-68-8	irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
o-(p- Isocyanatobenzyl)phenyl isocyanate 5873-54-1	irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

No data available.

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Species	Method
4,4'- methylenediphenyl diisocyanate 101-68-8	sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
o-(p- Isocyanatobenzyl)phenyl isocyanate 5873-54-1	sensitising	Respiratory sensitisation	guinea pig	not specified
o-(p- Isocyanatobenzyl)phenyl isocyanate 5873-54-1	not sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
o-(p- Isocyanatobenzyl)phenyl isocyanate 5873-54-1	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
2,2'-Methylenediphenyl diisocyanate 2536-05-2	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
2,2'-Methylenediphenyl diisocyanate 2536-05-2	sensitising	Respiratory sensitisation	guinea pig	not specified

Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
4,4'- methylenediphenyl diisocyanate 101-68-8	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		EU Method B.13/14 (Mutagenicity)
o-(p- Isocyanatobenzyl)phenyl isocyanate 5873-54-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
2,2'-Methylenediphenyl diisocyanate 2536-05-2	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
4,4'- methylenediphenyl diisocyanate 101-68-8	negative	inhalation		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
o-(p- Isocyanatobenzyl)phenyl isocyanate 5873-54-1	negative	inhalation		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
2,2'-Methylenediphenyl diisocyanate 2536-05-2	negative	inhalation		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Carcinogenicity

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Sex	Method
4,4'- methylenediphenyl diisocyanate 101-68-8	carcinogenic	inhalation: aerosol	2 y 6 h/d	rat	male/female	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
o-(p- Isocyanatobenzyl)phenyl isocyanate 5873-54-1	carcinogenic	inhalation: aerosol	2 y 6 h/d, 5 d/w	rat	male/female	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
2,2'-Methylenediphenyl diisocyanate 2536-05-2	carcinogenic	inhalation: aerosol	2 y 6 h/d, 5 d/w	rat	male/female	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

Reproductive toxicity:

No data available.

STOT-single exposure:

No data available.

STOT-repeated exposure::

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
Diphenylmethane diisocyanate, isomers and homologues 9016-87-9	NOAEL 0,2 mg/m ³	inhalation: aerosol	2 y 6 h per d, 5 d per week	rat	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
4,4'- methylenediphenyl diisocyanate 101-68-8		inhalation: aerosol	main: 2 y; satellite:1 y 6 h/d; 5 d/w	rat	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
o-(p- Isocyanatobenzyl)phenyl isocyanate 5873-54-1	NOAEL 0,2 mg/m ³	inhalation: aerosol	2 y 6 h/d, 5 d/w	rat	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
2,2'-Methylenediphenyl diisocyanate 2536-05-2	NOAEL 0,2 mg/m ³	inhalation: aerosol	2 y 6 h/d, 5 d/w	rat	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

Aspiration hazard:

No data available.

SECTION 12: Ecological information

General ecological information:

Do not empty into drains, soil or bodies of water.

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Diphenylmethane	LC50	> 1.000 mg/l	96 h	Danio rerio	OECD Guideline 203 (Fish,
diisocyanate, isomers and					Acute Toxicity Test)
homologues					
9016-87-9					
4,4'- methylenediphenyl	LC50	> 1.000 mg/l	96 h	Danio rerio	OECD Guideline 203 (Fish,
diisocyanate					Acute Toxicity Test)
101-68-8					
o-(p-Isocyanatobenzyl)phenyl	LC50	> 1.000 mg/l	96 h	Danio rerio	OECD Guideline 203 (Fish,
isocyanate					Acute Toxicity Test)
5873-54-1					
2,2'-Methylenediphenyl	LC50	> 1.000 mg/l	96 h	Danio rerio	OECD Guideline 203 (Fish,
diisocyanate					Acute Toxicity Test)
2536-05-2					

Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
4,4'- methylenediphenyl	EC50	129,7 mg/l	24 h	Daphnia magna	OECD Guideline 202
diisocyanate					(Daphnia sp. Acute
101-68-8					Immobilisation Test)

Chronic toxicity to aquatic invertebrates

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
	**	10 mg/l	21 d	1 0	OECD 211 (Daphnia
diisocyanate					magna, Reproduction Test)
101-68-8					

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
4,4'- methylenediphenyl	EC50	> 1.640 mg/l	72 h	Scenedesmus subspicatus (new	OECD Guideline 201 (Alga,
diisocyanate				name: Desmodesmus	Growth Inhibition Test)
101-68-8				subspicatus)	
4,4'- methylenediphenyl	NOELR	1.640 mg/l	72 h	Scenedesmus subspicatus (new	OECD Guideline 201 (Alga,
diisocyanate				name: Desmodesmus	Growth Inhibition Test)
101-68-8				subspicatus)	

Toxicity to microorganisms

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
4,4'- methylenediphenyl	EC50	> 100 mg/l	3 h	activated sludge	OECD Guideline 209
diisocyanate		-		-	(Activated Sludge,
101-68-8					Respiration Inhibition Test)

12.2. Persistence and degradability

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
4,4'- methylenediphenyl	not readily biodegradable.	aerobic	0 %	28 d	OECD Guideline 301 F (Ready
diisocyanate					Biodegradability: Manometric
101-68-8					Respirometry Test)

12.3. Bioaccumulative potential

Hazardous substances	Bioconcentratio	Exposure time	Temperature	Species	Method
CAS-No.	n factor (BCF)	_	-	-	
4,4'- methylenediphenyl	92 - 200	28 d		Cyprinus carpio	OECD Guideline 305 E
diisocyanate					(Bioaccumulation: Flow-through
101-68-8					Fish Test)

12.4. Mobility in soil

Hazardous substances CAS-No.	LogPow	Temperature	Method
4,4'- methylenediphenyl diisocyanate 101-68-8	4,51	22 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1	5,22		not specified

12.5. Results of PBT and vPvB assessment

Hazardous substances	PBT / vPvB		
CAS-No.			
Diphenylmethane diisocyanate, isomers and homologues 9016-87-9	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.		
4,4'- methylenediphenyl diisocyanate 101-68-8	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.		
o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.		
2,2'-Methylenediphenyl diisocyanate 2536-05-2	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.		

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

In consultation with the responsible local authority, must be subjected to special treatment.

Waste code

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

080409

SECTION 14: Transport information 14.1. **UN number** Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR. 14.2. UN proper shipping name Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR. 14.3. Transport hazard class(es) Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR. 14.4. Packing group Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR. 14.5. **Environmental hazards** Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR. 14.6. Special precautions for user Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR. 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture VOC content 0 %

VOC content (VOCV 814.018 VOC regulation CH)

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text

- of all abbreviations indicated by codes in this safety data sheet are as follows:
 - H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

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

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated exposure.

Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.