ROOF ACCESSORIES

Safety Data Sheet

InsuBond Solvent-Free Insulation Adhesive

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1	**Product Identifier**		
	Product name	InsuBond Solvent-Free Insulation Adhesive	
1.2	**Relevant identified uses of the substance or mixture and uses advised against**		
	Identified uses	Adhesive	
	Uses advised against	No specific uses advised against are identified.	
1.3	**Details of the supplier of the safety data sheet**	Moy Materials Ltd. Columbia Mills, 14/15 Sir John Rogerson's Quay, Dublin 2, D02 E409 Ireland info@moy.group	
1.4	**Emergency telephone numbers**		
	Emergency telephone	+44 (0) 1827 69662 (NOT 24hrs – 8am – 5pm Mon-Fri)	
	National emergency telephone	National Poisons Information Service (UK) TEL: 0844 892 0111 (healthcare professionals only)	

SECTION 2: HAZARD IDENTIFICATION

2.1	**Classification of the substance or mixture**		
	Classification (SI 2019 No. 720)		
	Physical hazards	Not Classified	
	Health hazards	Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Resp. Sens. 1 - H334 Skin Sens. 1 - H317 Carc. 2 - H351 STOT SE 3 - H335 STOT RE 2 - H373	
	Environmental hazards	Not Classified	
	Human health	May cause sensitisation by inhalation.	
	Physicochemical	Vapours are heavier than air and may travel along the floor and accumulate in the bottom of containers.	
2.2	**Label elements**		
	Hazard pictograms		
			
	Signal word	Danger	
	Hazard statements	H332 Harmful if inhaled.	
		H315 Causes skin irritation.	
		H319 Causes serious eye irritation.	
		H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.	
		H317 May cause an allergic skin reaction.	
		H351 Suspected of causing cancer.	
		H335 May cause respiratory irritation.	
		H373 May cause damage to organs through prolonged or repeated exposure.	

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	Precautionary statements	P260 Do not breathe vapour/ spray.
		P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
		P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
		P308+P313 IF exposed or concerned: Get medical advice/ attention.
		P501 Dispose of contents/ container in accordance with national regulations.
	Supplemental label information	EUH204 Contains isocyanates. May produce an allergic reaction.
		RCH004a Persons already sensitised to diisocyanates may develop allergic reactions when using this product.
		RCH004b Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.
		RCH004c This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.
		As from 24 August 2023, adequate training is required before industrial or professional use
	Contains	diphenylmethane-diisocyanate, isomers and homologues, DIPHENYLMETHANE-4,4'-DI- ISOCYANATE, DIPHENYLMETHANE-2,4'-DI-ISOCYANATE, DIPHENYLMETHANE-2,2'-DI- ISOCYANATE
	Supplementary precautionary statements	P201 Obtain special instructions before use.
		P202 Do not handle until all safety precautions have been read and understood.
		P261 Avoid breathing vapour/ spray.
		P264 Wash contaminated skin thoroughly after handling.
		P271 Use only outdoors or in a well-ventilated area.
		P272 Contaminated work clothing should not be allowed out of the workplace.
		P284 [In case of inadequate ventilation] wear respiratory protection.
		P302+P352 IF ON SKIN: Wash with plenty of water.
		P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
		P312 Call a POISON CENTRE/doctor if you feel unwell.
		P314 Get medical advice/ attention if you feel unwell.
		P321 Specific treatment (see medical advice on this label).
		P332+P313 If skin irritation occurs: Get medical advice/ attention.
		P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
		P337+P313 If eye irritation persists: Get medical advice/

		attention.
		P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.
		P362+P364 Take off contaminated clothing and wash it before reuse.
		P403+P233 Store in a well-ventilated place. Keep container tightly closed.
		P405 Store locked up.
2.3	**Other hazards**	This product does not contain any substances classified as PBT or vPvB.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 **Mixtures**

diphenylmethane-diisocyanate, isomers and homologues CAS number: 9016-87-9			**10-30%**
Classification			
Acute Tox. 4 - H332			
Skin Irrit. 2 - H315			
Eye Irrit. 2 - H319			
Resp. Sens. 1 - H334			
Skin Sens. 1 - H317			
Carc. 2 - H351			
STOT SE 3 - H335			
STOT RE 2 - H373			

DIPHENYLMETHANE-4,4'-DI-ISOCYANATE CAS number: 101-68-8	EC number: 202-966-0		**10-30%**
Classification			
Acute Tox. 4 - H332			
Skin Irrit. 2 - H315			
Eye Irrit. 2 - H319			
Resp. Sens. 1 - H334			
Skin Sens. 1 - H317			
Carc. 2 - H351			
STOT SE 3 - H335			
STOT RE 2 - H373			

	DIPHENYLMETHANE-2,4'-DI-ISOCYANATE CAS number: 5873-54-1	EC number: 227-534-9		**1-5%**
	Classification			
	Acute Tox. 4 - H332			
	Skin Irrit. 2 - H315			
	Eye Irrit. 2 - H319			
	Resp. Sens. 1 - H334			
	Skin Sens. 1 - H317			
	Carc. 2 - H351			
	STOT SE 3 - H335			
	STOT RE 2 - H373			

	DIPHENYLMETHANE-2,2'-DI-ISOCYANATE CAS number: 2536-05-2	EC number: 219-799-4		**<1%**
	Classification			
	Acute Tox. 4 - H332			
	Skin Irrit. 2 - H315			
	Eye Irrit. 2 - H319			
	Resp. Sens. 1 - H334			
	Skin Sens. 1 - H317			
	Carc. 2 - H351			
	STOT SE 3 - H335			
	STOT RE 2 - H373			

The full text for all hazard statements is displayed in Section 16.

SECTION 4: FIRST AID MEASURES

	Description of first aid measures	
4.1	**General information**	Remove affected person from source of contamination.
	Inhalation	Move affected person to fresh air at once. Get medical attention if any discomfort continues.
	Ingestion	DO NOT induce vomiting. Get medical attention immediately.
	Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.
	Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing. Show this Safety Data Sheet to the medical personnel.
4.2	**Most important symptoms and effects, both acute and delayed**	
	General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

	Inhalation	Irritation of nose, throat and airway. Coughing, chest tightness, feeling of chest pressure.
	Ingestion	May cause discomfort if swallowed.
	Skin contact	Prolonged skin contact may cause redness and irritation.
	Eye contact	Severe irritation, burning and tearing.
4.3	**Indication of any immediate medical attention and special treatment needed**	
	Notes for the doctor	No specific recommendations. If in doubt, get medical attention promptly.
	Specific treatments	Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1	**Extinguishing media**	
	Suitable extinguishing media	Extinguish with foam, carbon dioxide, dry powder or water fog.
	Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
5.2	**Special hazards arising from the substance or mixture**	
	Specific hazards	The product is non-combustible. Irritating gases or vapours. Not known.
	Hazardous combustion products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Oxides of nitrogen.
5.3	**Advice for firefighters**	
	Protective actions during firefighting	Containers close to fire should be removed or cooled with water. Do not allow water to contact any leaked material.
	Special protective equipment for firefighters	Wear chemical protective suit. Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1	**Personal precautions, protective equipment and emergency procedures**	
	Personal precautions	Wear protective clothing as described in Section 8 of this safety data sheet.
6.2	**Environmental precautions**	
	Environmental precautions	Do not discharge into drains or watercourses or onto the ground.
6.3	**Methods and material for containment and cleaning up**	
	Methods for cleaning up	Absorb spillage with non-combustible, absorbent material. Absorb spillage with non- combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely. Provide adequate ventilation. Contain spillage with sand, earth or other suitable non-combustible material. Avoid the spillage or runoff entering drains, sewers or watercourses.
6.4	**Reference to other sections**	
	Reference to other sections	Wear protective clothing as described in Section 8 of this safety

		data sheet.

SECTION 7: HANDLING AND STORAGE

7.1	**Precautions for safe handling**		
	Usage precautions	Avoid inhalation of vapours and spray/mists. Avoid contact with skin and eyes. Do not use in confined spaces without adequate ventilation and/or respirator. Spraying is permitted only in closed systems, spray cabinets or spray boxes with adequate ventilation.	
7.2	**Conditions for safe storage, including any incompatibilities**		
	Storage precautions	Store in closed original container at temperatures between 5°C and 25°C.	
	Storage class	Chemical storage.	
7.3	**Specific end use(s)**		
	Specific end use(s)	The identified uses for this product are detailed in Section 1.2.	

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1	**Control parameters**		
	Occupational exposure limits		
	diphenylmethane-diisocyanate, isomers and homologues		
	Long-term exposure limit (8-hour TWA): WEL 0.02 mg/m³		
	Short-term exposure limit (15-minute): WEL 0.07 mg/m³		
	DIPHENYLMETHANE-4,4'-DI-ISOCYANATE		
	Long-term exposure limit (8-hour TWA): WEL 0.02 mg/m3(Sen)		
	Short-term exposure limit (15-minute): WEL 0.07 mg/m3(Sen)		
	DIPHENYLMETHANE-2,4'-DI-ISOCYANATE		
	Long-term exposure limit (8-hour TWA): WEL 0.02 mg/m3(Sen)		
	Short-term exposure limit (15-minute): WEL 0.07 mg/m3(Sen)		
	DIPHENYLMETHANE-2,2'-DI-ISOCYANATE		
	Long-term exposure limit (8-hour TWA): WEL 0.02 mg/m3(Sen)		
	Short-term exposure limit (15-minute): WEL 0.07 mg/m3(Sen)		
	WEL = Workplace Exposure Limit.		
	Ingredient comments	WEL = Workplace Exposure Limits	
		diphenylmethane-diisocyanate, isomers and homologues (CAS: 9016-87-9)	
	Ingredient comments	WEL = Workplace Exposure Limits	
	DNEL	Workers - Dermal; Short term systemic effects: 50 mg/kg	
		Workers - Inhalation; Short term systemic effects: 0.1 mg/m³	
		Workers - Dermal; Short term local effects: 28.7 mg/cm²	
		Workers - Inhalation; Short term local effects: 0.1 mg/m³	

		Workers - Inhalation; Long term systemic effects: 0.05 mg/m³
		Workers - Inhalation; Long term local effects: 0.05 mg/m³
		General population - Dermal; Short term systemic effects: 25 mg/kg
		General population - Inhalation; Short term systemic effects: 0.05 mg/m³
		General population - Oral; Short term systemic effects: 20 mg/kg
		General population - Dermal; Short term local effects: 17.2 mg/cm²
		General population - Inhalation; Short term local effects: 0.05 mg/m³
		General population - Inhalation; Long term systemic effects: 0.025 mg/m³
		General population - Inhalation; Long term local effects: 0.025 mg/m³
	PNEC	- Fresh water; 1 mg/l
		- marine water; 0.1 mg/l
		- Soil; 0.583 mg/kg dry weight
		- STP; 1 mg/l
		DIPHENYLMETHANE-4,4'-DI-ISOCYANATE (CAS: 101-68-8)
	DNEL	Workers - Inhalation; Short term systemic effects: 0.1 mg/m³
		Workers - Dermal; Short term local effects: 28.7 mg/cm²
		Workers - Inhalation; Short term local effects: 0.1 mg/m³
		Workers - Inhalation; Long term systemic effects: 0.05 mg/m³
		Workers - Inhalation; Long term local effects: 0.05 mg/m³
		Consumer - Dermal; Short term systemic effects: 25 mg/kg bw/day
		Workers - Dermal; Short term systemic effects: 50 mg/kg bw/day
		Consumer - Oral; Short term systemic effects: 20 mg/kg bw/day
		Consumer - Dermal; Short term local effects: 17.2 mg/cm²
		Consumer - Inhalation; Short term local effects: 0.05 mg/m³
		Consumer - Inhalation; Long term systemic effects: 0.025 mg/m³
		Consumer - Inhalation; Long term local effects: 0.025 mg/m³
		Consumer - Inhalation; Short term systemic effects: 0.05 mg/m³
	PNEC	- marine water; 0.1 mg/l
		- STP; 1 mg/l
		- Fresh water; 1 mg/l
		- Soil; 1 mg/kg
8.2	**Exposure controls**	
	Protective equipment	
		
	Appropriate engineering controls	Provide adequate ventilation. Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients.
	Eye/face protection	Wear chemical splash goggles.
	Hand protection	It is recommended that gloves are made of the following material: Nitrile rubber. It should

		be noted that liquid may penetrate the gloves. Frequent changes are recommended. For exposure up to 8 hours, wear gloves made of the following material: Nitrile rubber.
	Other skin and body protection	Wear suitable protective clothing as protection against splashing or contamination. Wear apron or protective clothing in case of contact.
	Hygiene measures	Use engineering controls to reduce air contamination to permissible exposure level. Wash hands after handling. When using do not eat, drink or smoke.
	Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: ABEK2-P3. In confined or poorly-ventilated spaces, a supplied-air respirator must be worn.
	Environmental exposure controls	Keep container tightly sealed when not in use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1	**Information on basic physical and chemical properties**	
	Appearance	Coloured liquid.
	Colour	Various colours.
	Odour	Musty (mouldy).
	Odour threshold	Not available.
	pH	Estimated value. pH (concentrated solution): 7-8
	Melting point	<10°C
	Initial boiling point and range	330°C @ mbar
	Flash point	>200°C Closed cup.
	Evaporation rate	slow
	Evaporation factor	Not available.
	Flammability (solid, gas)	Not available.
	Other flammability	Not available.
	Vapour pressure	0.01 Pa @ °C
	Vapour density	8.5
	Relative density	1.12 @ 20°C
	Bulk density	Not available.
	Solubility(ies)	Insoluble in water. Hardens in contact with water.
	Partition coefficient	Not available.
	Auto-ignition temperature	>600°C
	Decomposition Temperature	Not available.
	Viscosity	>2000 cP @ 25°C
	Explosive properties	Not available.
	Explosive under the influence of a flame	Not considered to be explosive.
	Oxidising properties	Not available.
	Comments	Information given is applicable to the product as supplied.
9.2	**Other information**	
	Other information	No information required.
	Refractive index	Not available.
	Particle size	Not available.
	Molecular weight	Not available.
	Volatility	Not available.
	Saturation concentration	Not available.
	Critical temperature	Not available.
	Volatile organic compound	No information available.

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SECTION 10: STABILITY AND REACTIVITY

10.1	**Reactivity**		
	Reactivity	The product will harden into a solid mass in contact with water and moisture.	
10.2	**Chemical stability**		
	Stability	Stable at normal ambient temperatures and when used as recommended.	
10.3	**Possibility of hazardous reactions**		
	Possibility of hazardous reactions	Not applicable. May polymerise.	
10.4	**Conditions to avoid**		
	Conditions to avoid	Avoid contact with water.	
10.5	**Incompatible materials**		
	Materials to avoid	Strong oxidising agents.	
10.6	**Hazardous decomposition products**		
	Hazardous decomposition products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Oxides of carbon. Oxides of nitrogen.	

SECTION 11: TOXICOLOGICAL INFORMATION

11.1	**Information on toxicological effects**	
	Toxicological effects	No information available.
	Acute toxicity - inhalation	
	ATE inhalation (dusts/mists mg/l)	2.73
	Skin corrosion/irritation	
	Animal data	Irritating.
	Serious eye damage/irritation	
	Serious eye damage/irritation	Moderately irritating.
	Respiratory sensitisation	
	Respiratory sensitisation	Sensitising.
	Carcinogenicity	
	Carcinogenicity	Suspected carcinogen based on limited evidence.
	Target organ for carcinogenicity	No specific target organs known.
	Reproductive toxicity	
	Reproductive toxicity – fertility	Not available.
	Reproductive toxicity - development	This substance has no evidence of toxicity to reproduction.
	Specific target organ toxicity - repeated exposure	
	STOT - repeated exposure	Morphological changes that are potentially reversible but provide clear evidence of marked organ dysfunction.
	Aspiration hazard	
	Aspiration hazard	Not anticipated to present an aspiration hazard, based on chemical structure.

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	General information	No specific health hazards known.
	Inhalation	Irritating to respiratory system. May cause sensitisation by inhalation.
	Ingestion	May cause stomach pain or vomiting.
	Skin contact	Irritating to skin. May cause sensitisation by skin contact.
	Eye contact	Irritation of eyes and mucous membranes.
	Acute and chronic health hazards	May cause sensitisation by skin contact. The product contains small quantities of isocyanate. May cause respiratory allergy. May cause respiratory system irritation. May cause respiratory system irritation. Frequent inhalation of vapours may cause respiratory allergy.
	Route of exposure	Inhalation Skin and/or eye contact.
	Medical symptoms	Irritation of eyes and mucous membranes. Coughing, chest tightness, feeling of chest pressure.
	Medical considerations	Chronic respiratory and obstructive airway diseases.
	Toxicological information on ingredients.	
		diphenylmethane-diisocyanate, isomers and homologues
	Acute toxicity - oral	
	Acute toxicity oral (LD_{50} mg/kg)	10,000.0
	Species	Rat
	ATE oral (mg/kg)	10,000.0
	Acute toxicity - dermal	
	Acute toxicity dermal (LD_{50} mg/kg)	9,400.0
	Species	Rabbit
	ATE dermal (mg/kg)	9,400.0
	Acute toxicity - inhalation	
	Acute toxicity inhalation (LC_{50} vapours mg/l)	1.5
	Species	Rat
	ATE inhalation (vapours mg/l)	1.5
	Skin corrosion/irritation	
	Skin corrosion/irritation	Irritating.
	Serious eye damage/irritation	
	Serious eye damage/irritation	Moderately irritating.
	Respiratory sensitisation	
	Respiratory sensitisation	Sensitising.
	Carcinogenicity	
	Carcinogenicity	Suspected carcinogen based on limited evidence.
	Target organ for carcinogenicity	No specific target organs known.
	IARC carcinogenicity	IARC Group 3 Not classifiable as to its carcinogenicity to humans.
	Reproductive toxicity	
	Reproductive toxicity - development	This substance has no evidence of toxicity to reproduction.
	Specific target organ toxicity - repeated exposure	
	STOT - repeated exposure	Morphological changes that are potentially reversible but provide clear evidence of marked organ dysfunction.
	Aspiration hazard	
	Aspiration hazard	Not anticipated to present an aspiration hazard, based on

		chemical structure.
	Inhalation	Irritating to respiratory system. May cause sensitisation by inhalation.
	Ingestion	May cause stomach pain or vomiting.
	Skin contact	Irritating to skin. May cause sensitisation by skin contact.
	Eye contact	Irritation of eyes and mucous membranes.
	Acute and chronic health hazards	May cause sensitisation by skin contact. The product contains small quantities of isocyanate. May cause respiratory allergy. May cause respiratory system irritation. May cause respiratory system irritation. Frequent inhalation of vapours may cause respiratory allergy.
	Route of exposure	Inhalation Skin and/or eye contact
	Medical symptoms	Irritation of eyes and mucous membranes. Coughing, chest tightness, feeling of chest pressure.
	Medical considerations	Chronic respiratory and obstructive airway diseases.
		DIPHENYLMETHANE-4,4'-DI-ISOCYANATE
	Acute toxicity - oral	
	Acute toxicity oral (LD_{50} mg/kg)	10,000.0
	Species	Rat
	ATE oral (mg/kg)	10,000.0
	Acute toxicity - dermal	
	Acute toxicity dermal (LD_{50} mg/kg)	9,400.0
	Species	Rabbit
	ATE dermal (mg/kg)	9,400.0
	Acute toxicity - inhalation	
	Acute toxicity inhalation (LC_{50} dust/mist mg/l)	1.5
	Species	Rat
	ATE inhalation (dusts/mists mg/l)	1.5
	Carcinogenicity	
	IARC carcinogenicity	IARC Group 3 Not classifiable as to its carcinogenicity to humans.
		2,2'DIMORPHOLINYLDIETHYL ETHER
	Acute toxicity - oral	
	Acute toxicity oral (LD_{50} mg/kg)	2,035.0
	Species	Rat
	Notes (oral LD_{50})	No information available.
	ATE oral (mg/kg)	2,035.0
	Acute toxicity - dermal	
	Acute toxicity dermal (LD_{50} mg/kg)	3,038.0
	Species	Rabbit
	Notes (dermal LD_{50})	No information available.
	Acute toxicity - inhalation	
	Notes (inhalation LC_{50})	No information available.
	Skin corrosion/irritation	
	Skin corrosion/irritation	No information available.
	Serious eye damage/irritation	
	Serious eye damage/irritation	No information available.

	Respiratory sensitisation		
	Respiratory sensitisation	No information available.	
	Skin sensitisation		
	Skin sensitisation	No information available.	
	Carcinogenicity		
	IARC carcinogenicity	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.	
	Inhalation	May be harmful if inhaled. Spray/mists may cause respiratory tract irritation.	
	Ingestion	May be harmful if swallowed.	
	Skin contact	May be absorbed through the skin. May be harmful in contact with skin. May cause skin irritation.	
	Eye contact	May cause eye irritation.	
		BENZOYL CHLORIDE	
	Acute toxicity - oral		
	Acute toxicity oral (LD_{50} mg/kg)	1,900.0	
	Species	Rat	
	ATE oral (mg/kg)	1,900.0	
	Acute toxicity - dermal		
	Acute toxicity dermal (LD_{50} mg/kg)	790.0	
	Species	Rat	
	ATE dermal (mg/kg)	1,100.0	
	Acute toxicity - inhalation		
	Acute toxicity inhalation (LC_{50} vapours mg/l)	1.45	
	Species	Rat	
	ATE inhalation (vapours mg/l)	11.0	
	Carcinogenicity		
	IARC carcinogenicity	IARC Group 2A Probably carcinogenic to humans.	
		Orthophosphoric acid 85%	
	Acute toxicity - oral		
	Acute toxicity oral (LD_{50} mg/kg)	1,530.0	
	Species	Rat	
	ATE oral (mg/kg)	1,530.0	
	Acute toxicity - dermal		
	Acute toxicity dermal (LD_{50} mg/kg)	2,740.0	
	Species	Rabbit	
	ATE dermal (mg/kg)	2,740.0	

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity	The product is not expected to be hazardous to the environment.
Ecological information on ingredients	
	diphenylmethane-diisocyanate, isomers and homologues

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	Ecotoxicity	The product is not expected to be hazardous to the environment.	
12.1	**Toxicity**		
	Acute aquatic toxicity		
	Acute toxicity - fish	LC50, 96 hours: > 1000 mg/l, Freshwater fish	
	Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: >500 mg/l, Daphnia magna	
	Acute toxicity - aquatic plants	EC_{50}, 72 hours: ~ 1640 mg/l, Scenedesmus subspicatus	
		diphenylmethane-diisocyanate, isomers and homologues	
	Acute aquatic toxicity		
	Acute toxicity - fish	LC50, 96 hours: > 1000 mg/l, Freshwater fish	
	Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: >500 mg/l, Daphnia magna	
	Acute toxicity - aquatic plants	EC_{50}, 72 hours: ~ 1640 mg/l, Scenedesmus subspicatus	
	Acute toxicity - microorganisms	EC_{50}, 3 hours: 100 mg/l, Activated sludge	
	Chronic aquatic toxicity		
	Chronic toxicity - aquatic invertebrates	NOEC, 21 days: 10 mg/l, Daphnia magna	
		DIPHENYLMETHANE-4,4'-DI-ISOCYANATE	
	Acute aquatic toxicity		
	Acute toxicity - fish	LC_{50}, 96 hours: >1000 mg/l, Marinewater fish	
	Acute toxicity - aquatic invertebrates	EC_{50}, 24 hours: >1000 mg/l, Daphnia magna	
	Chronic aquatic toxicity		
	Chronic toxicity - aquatic invertebrates	NOEC, 21 days: >10 mg/l, Daphnia magna	
		2,2'DIMORPHOLINYLDIETHYL ETHER	
	Acute aquatic toxicity		
	Acute toxicity - fish	LC_{50}, 96 hours: 2150 mg/l,	
	Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: >100 mg/l, Daphnia magna	
	Acute toxicity - aquatic plants	EC_{50}, 72 hours: > 100 mg/l, Pseudokirchneriella subcapitata	
	Acute toxicity - microorganisms	EC_{50}, 3 hours: >1000 mg/l, Bacteria	
		BENZOYL CHLORIDE	
	Acute aquatic toxicity		
	Acute toxicity - fish	LC_{50}, 96 hours: 8.7 mg/l, Fish	
	Acute toxicity - aquatic invertebrates	Not available.	
	Acute toxicity - aquatic plants	Not available.	
	Acute toxicity - microorganisms	Not available.	
	Acute toxicity - terrestrial	Not available.	
		Orthophosphoric acid 85%	

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	Acute aquatic toxicity		
	Acute toxicity - fish	No information available.	
	Acute toxicity - aquatic invertebrates	Not available.	
	Acute toxicity - aquatic plants	Not available.	
	Acute toxicity - microorganisms	Not available.	
	Acute toxicity - terrestrial	Not available.	
12.2	**Persistence and degradability**		
	Persistence and degradability	The product is not readily biodegradable.	
	Stability (hydrolysis)	Reacts with water.	
	Biological oxygen demand	< 10 g O_2/g substance	
	Ecological information on ingredients		
		diphenylmethane-diisocyanate, isomers and homologues	
	Persistence and degradability	The product is not readily biodegradable.	
	Stability (hydrolysis)	Reacts with water.	
	Biological oxygen demand	< 10 g O_2/g substance	
12.3	**Bioaccumulative potential**		
	Bioaccumulative potential	The product does not contain any substances expected to be bioaccumulating.	
	Partition coefficient	Not available.	
	Ecological information on ingredients		
		diphenylmethane-diisocyanate, isomers and homologues	
	Bioaccumulative potential	The product does not contain any substances expected to be bioaccumulating.	
	Partition coefficient	Not available.	
		DIPHENYLMETHANE-4,4'-DI-ISOCYANATE	
	Partition coefficient	log Pow: 4.51	
12.4	**Mobility in soil**		
	Mobility	The product is non-volatile.	
	Ecological information on ingredients		
		diphenylmethane-diisocyanate, isomers and homologues	
	Mobility	The product is non-volatile.	
12.5	**Results of PBT and vPvB assessment**	This product does not contain any substances classified as PBT or vPvB.	
	Ecological information on ingredients		

		diphenylmethane-diisocyanate, isomers and homologues
	Results of PBT and vPvB assessment	This product does not contain any substances classified as PBT or vPvB.
12.6	**Other adverse effects**	
	Other adverse effects	None known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1	**Waste treatment methods**	
	General information	Waste should be treated as controlled waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
	Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
	Waste class	Alphanumeric Codes of Material Types on Packaging: PLASTIC CAP LDPE 2 STEEL TIN FE40

SECTION 14: TRANSPORT INFORMATION

	General	The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).	
14.1	**UN number**		
	Not applicable.		
14.2	**UN proper shipping name**		
	Not applicable.		
14.3	**Transport hazard class(es)**		
	No transport warning sign required.		
14.4	**Packing group**		
	Not applicable.		
14.5	**Environmental hazards**		
	Environmentally hazardous substance/marine pollutant	No	
14.6	**Special precautions for user**		
	Not applicable.		
14.7	**Transport in bulk according to Annex II of MARPOL and the IBC Code**		
	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code		Not applicable.

SECTION 15: REGULATORY INFORMATION

15.1	**Safety, health and environmental regulations/legislation specific for the substance or mixture**	
	National regulations	Health and Safety at Work etc. Act 1974 (as amended).

Safety Data Sheet

InsuBond Solvent-Free Insulation Adhesive

	Restrictions (SI 2020 No. 1577 Annex XVII)	As from 24 August 2023 adequate training is required before industrial or professional use Entry number: 74	
15.2	**Chemical safety assessment**	No chemical safety assessment has been carried out.	

SECTION 16: OTHER INFORMATION

	Revision comments	Revised classification. new scientific data Isocyanate training statement added to supplementary label information	
	Issued by	Compliance	
	Revision date	13/07/2022	
	Revision	23	
	Supersedes date	08/03/2022	
	SDS Number	20435	
	Hazard statements in full	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.	
	Store Between	Store Between 5°C-25°C	

Last update date (Manufacturer)	13/07/2022 (Rev 23)
Moy Materials Ltd version prepared by	Martin Bidewell (28/02/2023 v1)

The data contained in this document is correct on date of issue and complete to the best of our knowledge as it applies to this product. However, it does not constitute a guarantee for any specific product features and does not establish a legally valid contractual relationship. The information given does not represent an assurance and it is the user's responsibility to ensure that the information is suitable and complete for the respective use.