



Woodstikk PU Gel D4 Polyurethane Adhesive (Aro-Bond DX9925)

Ureka Global Ltd

Version No: 1.2

Safety data sheet according to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758

Chemwatch Hazard Alert Code: 4

Issue Date: 08/02/2023

Print Date: 08/02/2023

S.REACH.GB.EN

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

1.1. Product Identifier

Product name	Woodstikk PU Gel D4 Polyurethane Adhesive (Aro-Bond DX9925)
Chemical Name	Not Applicable
Synonyms	Not Available
Chemical formula	Not Applicable
Other means of identification	UFI:V3GV-9045-E000-PGEE

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

Environment Release Category	ERC5	Use at industrial site leading to inclusion into/onto article
Procedural Category	PROC5	Mixing or blending in batch processes
Chemical Product Category	PC1	Adhesives, sealants
Sectors of Use	SU22	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
	SU3	Industrial uses: Uses of substances as such or in preparations* at industrial sites
Relevant identified uses	Phthalates), or phthalate esters, are esters of phthalic acid. They are mainly used as plasticizers, i.e., substances added to plastics to increase their flexibility, transparency, durability, and longevity. They are used primarily to soften polyvinyl chloride (PVC).	
Uses advised against	No specific uses advised against are identified.	

1.3. Details of the manufacturer or supplier of the safety data sheet

Registered company name	Ureka Global Ltd
Address	Unit 5 Decoypool Road, St Modwen Park, Newport, NP19 4RG United Kingdom
Telephone	+44 (0)117 971 1364
Fax	Not Available
Website	www.thenamehatsticks.com
Email	sales@thenamethatsticks.com

1.4. Emergency telephone number

Association / Organisation	Not Available
Emergency telephone numbers	Not Available
Other emergency telephone numbers	Not Available


SECTION 2 Hazards identification

2.1. Classification of the substance or mixture

Classified according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567 [1]	H334 - Sensitisation (Respiratory) Category 1, H373 - Specific Target Organ Toxicity - Repeated Exposure Category 2, H332 - Acute Toxicity (Inhalation) Category 4, H335 - Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3, H315 - Skin Corrosion/Irritation Category 2, H319 - Serious Eye Damage/Eye Irritation Category 2, H317 - Sensitisation (Skin) Category 1, H351 - Carcinogenicity Category 2
Legend:	1. Classified by Chemwatch; 2. Classification drawn from GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567

Woodstikk PU Gel D4 Polyurethane Adhesive (Aro-Bond DX9925)

2.2. Label elements

Hazard pictogram(s)	
Signal word	Danger

Hazard statement(s)

H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure. (Respiratory system) (Inhalation)
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.

Supplementary statement(s)

Not Applicable

Precautionary statement(s) Prevention

P201	Obtain special instructions before use.
P260	Do not breathe mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves, protective clothing, eye protection and face protection.
P284	[In case of inadequate ventilation] wear respiratory protection.
P264	Wash all exposed external body areas thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.

Precautionary statement(s) Response

P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313	IF exposed or concerned: Get medical advice/ attention.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor/physician/first aider.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Precautionary statement(s) Storage

P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

Precautionary statement(s) Disposal

P501	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.
------	--

2.3. Other hazards

Skin contact and/or ingestion may produce health damage*.

Vapours potentially cause drowsiness and dizziness*.

2,4'-diphenylmethane diisocyanate	Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)
4,4'-diphenylmethane diisocyanate (MDI)	Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)
diisodecyl phthalate	Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)
diisodecyl phthalate	Listed in the Europe Regulation (EU) 2018/1881 Specific Requirements for Endocrine Disruptors
2,2'-diphenylmethane diisocyanate	Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)
diisononyl phthalate	Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)
diisononyl phthalate	Listed in the Europe Regulation (EU) 2018/1881 Specific Requirements for Endocrine Disruptors

Woodstikk PU Gel D4 Polyurethane Adhesive (Aro-Bond DX9925)

SECTION 3 Composition / information on ingredients

3.1.Substances

See 'Composition on ingredients' in Section 3.2

3.2.Mixtures

1.CAS No 2.EC No 3.Index No 4.REACH No	%[weight]	Name	Classified according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567	SCL / M-Factor	Nanoform Particle Characteristics
1.5873-54-1 2.227-534-9 3.615-005-00-9 4.Not Available	5-15	<u>2,4'-diphenylmethane diisocyanate</u>	Acute Toxicity (Inhalation) Category 4, Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2, Sensitisation (Skin) Category 1, Sensitisation (Respiratory) Category 1, Carcinogenicity Category 2, Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3, Specific Target Organ Toxicity - Repeated Exposure Category 2; H332, H315, H319, H317, H334, H351, H335, H373 [2]	Eye Irrit. 2; H319: C ≥ 5 % Skin Irrit. 2; H315: C ≥ 5 % Resp. Sens. 1; H334: C ≥ 0,1 % STOT SE 3; H335: C ≥ 5 %	Not Available
1.101-68-8 2.202-966-0 406-550-1 3.615-005-00-9 4.Not Available	5-15	<u>4,4'-diphenylmethane diisocyanate (MDI)</u>	Acute Toxicity (Inhalation) Category 4, Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2, Sensitisation (Skin) Category 1, Sensitisation (Respiratory) Category 1, Carcinogenicity Category 2, Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3, Specific Target Organ Toxicity - Repeated Exposure Category 2; H332, H315, H319, H317, H334, H351, H335, H373 [2]	Eye Irrit. 2; H319: C ≥ 5 % Skin Irrit. 2; H315: C ≥ 5 % Resp. Sens. 1; H334: C ≥ 0,1 % STOT SE 3; H335: C ≥ 5 %	Not Available
1.26761-40-0 2.247-977-1 3.Not Available 4.Not Available	2-5	<u>diisodecyl phthalate</u> [e]	Hazardous to the Aquatic Environment Long-Term Hazard Category 2; H411 [1]	Not Available	Not Available
1.6425-39-4 2.229-194-7 3.Not Available 4.Not Available	<2	<u>2,2'-dimorpholinodiethyl ether</u>	Acute Toxicity (Oral) Category 4, Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2, Sensitisation (Skin) Category 1; H302, H315, H319, H317 [1]	Not Available	Not Available
1.2536-05-2 2.219-799-4 3.615-005-00-9 4.Not Available	<1	<u>2,2'-diphenylmethane diisocyanate</u>	Acute Toxicity (Inhalation) Category 4, Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2, Sensitisation (Skin) Category 1, Sensitisation (Respiratory) Category 1, Carcinogenicity Category 2, Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3, Specific Target Organ Toxicity - Repeated Exposure Category 2; H332, H315, H319, H317, H334, H351, H335, H373 [2]	Eye Irrit. 2; H319: C ≥ 5 % Skin Irrit. 2; H315: C ≥ 5 % Resp. Sens. 1; H334: C ≥ 0,1 % STOT SE 3; H335: C ≥ 5 %	Not Available
1.28553-12-0 2.249-079-5 3.Not Available 4.Not Available	<0.5	<u>diisononyl phthalate</u> [e]	Reproductive Toxicity Category 2, Hazardous to the Aquatic Environment Acute Hazard Category 1; H361fd, H400 [1]	Not Available	Not Available

Legend: 1. Classified by Chemwatch; 2. Classification drawn from GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567; 3. Classification drawn from C&L; * EU IOELVs available; [e] Substance identified as having endocrine disrupting properties

SECTION 4 First aid measures

4.1. Description of first aid measures

Eye Contact	<p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> Wash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	<p>If skin contact occurs:</p> <ul style="list-style-type: none"> Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.
Inhalation	<ul style="list-style-type: none"> If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor, without delay. <p>Following uptake by inhalation, move person to an area free from risk of further exposure. Oxygen or artificial respiration should be administered as needed. Asthmatic-type symptoms may develop and may be immediate or delayed up to several hours. Treatment is essentially symptomatic. A physician should be consulted.</p>
Ingestion	<ul style="list-style-type: none"> Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

4.2 Most important symptoms and effects, both acute and delayed

Continued...

Woodstikk PU Gel D4 Polyurethane Adhesive (Aro-Bond DX9925)

See Section 11

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

For sub-chronic and chronic exposures to isocyanates:

- This material may be a potent pulmonary sensitiser which causes bronchospasm even in patients without prior airway hyperreactivity.
- Clinical symptoms of exposure involve mucosal irritation of respiratory and gastrointestinal tracts.
- Conjunctival irritation, skin inflammation (erythema, pain vesiculation) and gastrointestinal disturbances occur soon after exposure.
- Pulmonary symptoms include cough, burning, substernal pain and dyspnoea.
- Some cross-sensitivity occurs between different isocyanates.
- Noncardiogenic pulmonary oedema and bronchospasm are the most serious consequences of exposure. Markedly symptomatic patients should receive oxygen, ventilatory support and an intravenous line.
- Treatment for asthma includes inhaled sympathomimetics (epinephrine [adrenalin], terbutaline) and steroids.
- Activated charcoal (1 g/kg) and a cathartic (sorbitol, magnesium citrate) may be useful for ingestion.
- Mydriatics, systemic analgesics and topical antibiotics (Sulamyd) may be used for corneal abrasions.
- There is no effective therapy for sensitised workers.

[Ellenhorn and Barceloux; Medical Toxicology]

NOTE: Isocyanates cause airway restriction in naive individuals with the degree of response dependant on the concentration and duration of exposure. They induce smooth muscle contraction which leads to bronchoconstrictive episodes. Acute changes in lung function, such as decreased FEV1, may not represent sensitivity.

[Karol & Jin, Frontiers in Molecular Toxicology, pp 56-61, 1992]

Personnel who work with isocyanates, isocyanate prepolymers or polyisocyanates should have a pre-placement medical examination and periodic examinations thereafter, including a pulmonary function test. Anyone with a medical history of chronic respiratory disease, asthmatic or bronchial attacks, indications of allergic responses, recurrent eczema or sensitisation conditions of the skin should not handle or work with isocyanates. Anyone who develops chronic respiratory distress when working with isocyanates should be removed from exposure and examined by a physician. Further exposure must be avoided if a sensitivity to isocyanates or polyisocyanates has developed.

SECTION 5 Firefighting measures**5.1. Extinguishing media**

- Flooding quantities of water only.
- Foam.
- Dry chemical powder.
- BCF (where regulations permit).

5.2. Special hazards arising from the substrate or mixture**Fire Incompatibility**

- Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

5.3. Advice for firefighters

Fire Fighting	<ul style="list-style-type: none">▸ Alert Fire Brigade and tell them location and nature of hazard.▸ Wear breathing apparatus plus protective gloves.▸ Prevent, by any means available, spillage from entering drains or water courses.
Fire/Explosion Hazard	<ul style="list-style-type: none">- Combustible.- Moderate fire hazard when exposed to heat or flame.- When heated to high temperatures decomposes rapidly generating vapour which pressures and may then rupture containers with release of flammable and highly toxic isocyanate vapour. <p>Combustion products include:</p> <ul style="list-style-type: none">, carbon monoxide (CO), carbon dioxide (CO2), isocyanates, hydrogen cyanide, and minor amounts of, nitrogen oxides (NOx), other pyrolysis products typical of burning organic material. <p>May emit corrosive fumes.</p>

SECTION 6 Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

See section 8

6.2. Environmental precautions

See section 12

6.3. Methods and material for containment and cleaning up

Minor Spills	<p>Environmental hazard - contain spillage.</p> <ul style="list-style-type: none">▸ Clean up all spills immediately.▸ Avoid contact with skin and eyes.▸ Wear impervious gloves and safety goggles.
Major Spills	<p>Environmental hazard - contain spillage.</p> <p>For isocyanate spills of less than 40 litres (2 m2):</p> <ul style="list-style-type: none">▸ Evacuate area from everybody not dealing with the emergency, keep them upwind and prevent further access, remove ignition sources and, if inside building, ventilate area as well as possible.▸ Notify supervision and others as necessary.▸ Put on personal protective equipment (suitable respiratory protection, face and eye protection, protective suit, gloves and impermeable boots).

Continued...

Woodstikk PU Gel D4 Polyurethane Adhesive (Aro-Bond DX9925)

- ▶ Avoid contamination with water, alkalis and detergent solutions.
 - ▶ Material reacts with water and generates gas, pressurises containers with even drum rupture resulting.
 - ▶ **DO NOT** reseal container if contamination is suspected.
- Minor hazard.
- ▶ Clear area of personnel.
 - ▶ Alert Fire Brigade and tell them location and nature of hazard.

6.4. Reference to other sections

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Safe handling	<ul style="list-style-type: none"> ▶ Avoid all personal contact, including inhalation. ▶ Wear protective clothing when risk of exposure occurs. ▶ Use in a well-ventilated area.
Fire and explosion protection	See section 5
Other information	<ul style="list-style-type: none"> ▶ Store in original containers. ▶ Keep containers securely sealed. ▶ Store in a cool, dry, well-ventilated area.

7.2. Conditions for safe storage, including any incompatibilities

Suitable container	<ul style="list-style-type: none"> ▶ Metal can or drum ▶ Packaging as recommended by manufacturer. ▶ Check all containers are clearly labelled and free from leaks.
Storage incompatibility	<p>Phthalates:</p> <ul style="list-style-type: none"> ▶ react with strong acids, strong oxidisers, permanganates and nitrates ▶ attack some form of plastics <p>Contains a six-membered heterocyclic ring.</p> <p>Six-membered heterocycles can be described as pi-deficient. Substitution by electronegative groups or additional nitrogen atoms in the ring significantly increase the pi-deficiency.</p> <p>For morpholines:</p> <p>Morpholine undergoes most chemical reactions typical for other secondary amines, though the presence of the ether oxygen withdraws electron density from the nitrogen, rendering it less nucleophilic (and less basic) than structurally similar secondary amines such as piperidine.</p> <ul style="list-style-type: none"> · Avoid reaction with water, alcohols and detergent solutions. Isocyanates are electrophiles, and as such they are reactive toward a variety of nucleophiles including alcohols, amines, and even water. Upon treatment with an alcohol, an isocyanate forms a urethane linkage. ▶ A range of exothermic decomposition energies for isocyanates is given as 20-30 kJ/mol. ▶ The relationship between energy of decomposition and processing hazards has been the subject of discussion; it is suggested that values of energy released per unit of mass, rather than on a molar basis (J/g) be used in the assessment. ▶ For example, in "open vessel processes" (with man-hole size openings, in an industrial setting), substances with exothermic decomposition energies below 500 J/g are unlikely to present a danger, whilst those in "closed vessel processes" (opening is a safety valve or bursting disk) present some danger where the decomposition energy exceeds 150 J/g.
Hazard categories in accordance with Regulation (EC) No 1272/2008	Not Available
Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of	Not Available

7.3. Specific end use(s)

See section 1.2

SECTION 8 Exposure controls / personal protection

8.1. Control parameters

Ingredient	DNELs Exposure Pattern Worker	PNECs Compartment
2,4'-diphenylmethane diisocyanate	Inhalation 0.05 mg/m ³ (Local, Chronic) Inhalation 0.1 mg/m ³ (Local, Acute) <i>Inhalation 0.025 mg/m³ (Local, Chronic) *</i> <i>Inhalation 0.05 mg/m³ (Local, Acute) *</i>	1 mg/L (Water (Fresh)) 0.1 mg/L (Water - Intermittent release) 10 mg/L (Water (Marine)) 1 mg/kg soil dw (Soil) 1 mg/L (STP)
4,4'-diphenylmethane diisocyanate (MDI)	Inhalation 0.05 mg/m ³ (Local, Chronic) Inhalation 0.1 mg/m ³ (Local, Acute) <i>Inhalation 0.025 mg/m³ (Local, Chronic) *</i> <i>Inhalation 0.05 mg/m³ (Local, Acute) *</i>	1 mg/L (Water (Fresh)) 0.1 mg/L (Water - Intermittent release) 10 mg/L (Water (Marine)) 1 mg/kg soil dw (Soil) 1 mg/L (STP)
diisodecyl phthalate	Dermal 41.67 mg/kg bw/day (Systemic, Chronic) Inhalation 5.29 mg/m ³ (Systemic, Chronic) <i>Dermal 20.83 mg/kg bw/day (Systemic, Chronic) *</i> <i>Inhalation 1.3 mg/m³ (Systemic, Chronic) *</i> <i>Oral 0.75 mg/kg bw/day (Systemic, Chronic) *</i>	Not Available
2,2'-dimorpholinodiethyl ether	Dermal 1 mg/kg bw/day (Systemic, Chronic) Inhalation 7.28 mg/m ³ (Systemic, Chronic) <i>Dermal 0.5 mg/kg bw/day (Systemic, Chronic) *</i> <i>Inhalation 1.8 mg/m³ (Systemic, Chronic) *</i>	0.1 mg/L (Water (Fresh)) 0.01 mg/L (Water - Intermittent release) 1 mg/L (Water (Marine)) 8.2 mg/kg sediment dw (Sediment (Fresh Water))

Continued...

Woodstikk PU Gel D4 Polyurethane Adhesive (Aro-Bond DX9925)

Ingredient	DNELs	PNECs
	Exposure Pattern Worker	Compartment
	Oral 0.5 mg/kg bw/day (Systemic, Chronic) *	0.82 mg/kg sediment dw (Sediment (Marine)) 1.58 mg/kg soil dw (Soil) 100 mg/L (STP) 10 mg/kg food (Oral)
2,2'-diphenylmethane diisocyanate	Inhalation 0.05 mg/m³ (Local, Chronic) Inhalation 0.1 mg/m³ (Local, Acute) Inhalation 0.025 mg/m³ (Local, Chronic) * Inhalation 0.05 mg/m³ (Local, Acute) *	1 mg/L (Water (Fresh)) 0.1 mg/L (Water - Intermittent release) 10 mg/L (Water (Marine)) 1 mg/kg soil dw (Soil) 1 mg/L (STP)
diisononyl phthalate	Dermal 366 mg/kg bw/day (Systemic, Chronic) Inhalation 51.72 mg/m³ (Systemic, Chronic) Dermal 220 mg/kg bw/day (Systemic, Chronic) * Inhalation 15.3 mg/m³ (Systemic, Chronic) * Oral 4.4 mg/kg bw/day (Systemic, Chronic) *	30 mg/kg soil dw (Soil)

* Values for General Population

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
UK Workplace Exposure Limits (WELs).	2,4'-diphenylmethane diisocyanate	Isocyanates, all (as -NCO) Except methyl isocyanate	0.02 mg/m3	0.07 mg/m3	Not Available	Sen
UK Workplace Exposure Limits (WELs).	4,4'-diphenylmethane diisocyanate (MDI)	Isocyanates, all (as -NCO) Except methyl isocyanate	0.02 mg/m3	0.07 mg/m3	Not Available	Sen
UK Workplace Exposure Limits (WELs).	diisodecyl phthalate	Diisodecyl phthalate	5 mg/m3	Not Available	Not Available	Not Available
UK Workplace Exposure Limits (WELs).	2,2'-diphenylmethane diisocyanate	Isocyanates, all (as -NCO) Except methyl isocyanate	0.02 mg/m3	0.07 mg/m3	Not Available	Sen
UK Workplace Exposure Limits (WELs).	diisononyl phthalate	Diisononyl phthalate	5 mg/m3	Not Available	Not Available	Not Available

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
4,4'-diphenylmethane diisocyanate (MDI)	0.45 mg/m3	Not Available	Not Available
4,4'-diphenylmethane diisocyanate (MDI)	29 mg/m3	40 mg/m3	240 mg/m3

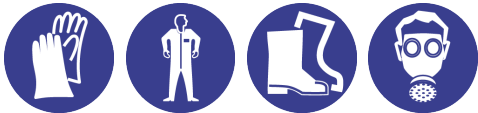
Ingredient	Original IDLH	Revised IDLH
2,4'-diphenylmethane diisocyanate	Not Available	Not Available
4,4'-diphenylmethane diisocyanate (MDI)	75 mg/m3	Not Available
diisodecyl phthalate	Not Available	Not Available
2,2'-dimorpholinodiethyl ether	Not Available	Not Available
2,2'-diphenylmethane diisocyanate	Not Available	Not Available
diisononyl phthalate	Not Available	Not Available

Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
2,2'-dimorpholinodiethyl ether	E	≤ 0.1 ppm

Notes: Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.

8.2. Exposure controls

8.2.1. Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk.
8.2.2. Personal protection	
Eye and face protection	<ul style="list-style-type: none">▶ Safety glasses with side shields.▶ Chemical goggles.▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.
Skin protection	See Hand protection below

Woodstikk PU Gel D4 Polyurethane Adhesive (Aro-Bond DX9925)

Hands/feet protection	NOTE: <ul style="list-style-type: none"> ▶ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. ▶ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed. ▶ Isocyanate resistant materials include Teflon, Viton, nitrile rubber and some PVA gloves. ▶ Protective gloves and overalls should be worn as specified in the appropriate national standard. ▶ Contaminated garments should be removed promptly and should not be re-used until they have been decontaminated.
Body protection	See Other protection below
Other protection	<ul style="list-style-type: none"> ▶ Overalls. ▶ P.V.C apron. ▶ Barrier cream.

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the **computer-generated** selection:

Woodstikk PU Gel D4 Polyurethane Adhesive (Aro-Bond DX9925)

Material	CPI
PE/EVAL/PE	A

* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.

Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	A-AUS P2	-	A-PAPR-AUS / Class 1 P2
up to 50 x ES	-	A-AUS / Class 1 P2	-
up to 100 x ES	-	A-2 P2	A-PAPR-2 P2 ^

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gases, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

8.2.3. Environmental exposure controls

See section 12

SECTION 9 Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Cream coloured		
Physical state	Gel	Relative density (Water = 1)	1.07
Odour	Slight	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	>200
pH (as supplied)	Not Available	Decomposition temperature (°C)	>140
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	373831.776
Initial boiling point and boiling range (°C)	>200	Molecular weight (g/mol)	Not Available
Flash point (°C)	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Available	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available
Nanoform Solubility	Not Available	Nanoform Particle Characteristics	Not Available
Particle Size	Not Available		

9.2. Other information

Not Available

SECTION 10 Stability and reactivity

Woodstikk PU Gel D4 Polyurethane Adhesive (Aro-Bond DX9925)

10.1.Reactivity	See section 7.2
10.2. Chemical stability	<p>► Presence of elevated temperatures.</p> <p>Product is considered stable and hazardous polymerisation will not occur.</p>
10.3. Possibility of hazardous reactions	See section 7.2
10.4. Conditions to avoid	See section 7.2
10.5. Incompatible materials	See section 7.2
10.6. Hazardous decomposition products	See section 5.3

SECTION 11 Toxicological information

11.1. Information on toxicological effects

Inhaled	<p>The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.</p> <p>The vapour/mist may be highly irritating to the upper respiratory tract and lungs; the response may be severe enough to produce bronchitis and pulmonary oedema. Possible neurological symptoms arising from isocyanate exposure include headache, insomnia, euphoria, ataxia, anxiety neurosis, depression and paranoia. Gastrointestinal disturbances are characterised by nausea and vomiting.</p>
Ingestion	<p>The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.</p> <p>The toxicity of phthalates is not excessive due to slow oral absorption and metabolism. Absorption is affected by fat in the diet. Repeated doses can cause cumulative toxic effects, and symptoms include an enlarged liver which often reverses if exposure is maintained.</p>
Skin Contact	<p>This material can cause inflammation of the skin on contact in some persons.</p> <p>The material may accentuate any pre-existing dermatitis condition</p> <p>Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions.</p> <p>Open cuts, abraded or irritated skin should not be exposed to this material</p> <p>Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.</p>
Eye	<p>This material can cause eye irritation and damage in some persons.</p>
Chronic	<p>There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment.</p> <p>Long-term exposure to respiratory irritants may result in airways disease, involving difficulty breathing and related whole-body problems. Inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population.</p> <p>Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.</p> <p>Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.</p> <p>This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects.</p> <p>Ample evidence from experiments exists that there is a suspicion this material directly reduces fertility.</p> <p>Long term exposure to morpholine and some related compounds may produce liver and kidney changes. Animal testing has shown evidence of chronic nose irritation and inflammation, and damage to the eye.</p> <p>Exposure to phthalates over years leads to pain, numbness and spasms in the hands and feet. Many people have developed multiple disorders in the nervous system and the balancing system.</p> <p>Persons with a history of asthma or other respiratory problems or are known to be sensitised, should not be engaged in any work involving the handling of isocyanates.</p> <p>The chemistry of reaction of isocyanates, as evidenced by MDI, in biological milieu is such that in the event of a true exposure of small MDI doses to the mouth, reactions will commence at once with biological macromolecules in the buccal region and will continue along the digestive tract prior to reaching the stomach. Reaction products will be a variety of polyureas and macromolecular conjugates with for example mucus, proteins and cell components.</p> <p>Respiratory sensitisation may result in allergic/asthma like responses; from coughing and minor breathing difficulties to bronchitis with wheezing, gasping.</p> <p>Isocyanate vapours are irritating to the airways and can cause their inflammation, with wheezing, gasping, severe distress, even loss of consciousness and fluid in the lungs. Nervous system symptoms that may occur include headache, sleep disturbance, euphoria, inco-ordination, anxiety, depression and paranoia.</p>

Woodstikk PU Gel D4 Polyurethane Adhesive (Aro-Bond DX9925)	TOXICITY	IRRITATION
	Not Available	Not Available
2,4'-diphenylmethane diisocyanate	TOXICITY	IRRITATION
	Not Available	Not Available
4,4'-diphenylmethane diisocyanate (MDI)	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >6200 mg/kg ^[2]	Eye: no adverse effect observed (not irritating) ^[1]
	Inhalation(Rat) LC50: 0.368 mg/L4h ^[1]	Skin (rabbit): 500 mg /24 hours Dermal Sensitiser *Respiratory Sensitiser (g.pig) *[* = Bayer CCINFO 2133615]
diisodecyl phthalate	TOXICITY	IRRITATION
	dermal (rat) LD50: >2900 mg/kg ^[2]	Not Available
	Inhalation(Rat) LC50: >12.54 mg/l4h ^[2]	
2,2'-dimorpholinodiethyl ether	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 746.24 mg/kg ^[1]	Eye (rabbit): irritant OECD 405
	Oral (Rat) LD50: >2000 mg/kg ^[1]	Eye: adverse effect observed (irritating) ^[1]

Woodstikk PU Gel D4 Polyurethane Adhesive (Aro-Bond DX9925)

		Skin (rabbit): irritant OECD 404
		Skin: no adverse effect observed (not irritating) ^[1]
2,2'-diphenylmethane diisocyanate	TOXICITY	IRRITATION
	Inhalation(Rat) LC50: 0.527 mg/L4h ^[1]	Not Available
diisononyl phthalate	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >3160 mg/kg ^[2]	Not Available
	Inhalation(Rat) LC50: >4.4 mg/l4h ^[1]	
	Oral (Rat) LD50: >10000 mg/kg ^[2]	
Legend:	1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances	
4,4'-DIPHENYLMETHANE DIISOCYANATE (MDI)	<p>Inhalation (human) TCl₀: 0.13 ppm/30 mins Eye (rabbit): 0.10 mg moderate</p> <p>The substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing. The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.</p>	
DIISODECYL PHTHALATE	<p>for bis(2-propylheptyl)phthalate</p> <p>A substance thought to be comparable to bis(2-propylheptyl)phthalate is diisodecyl phthalate (syn: DIDP)</p> <p>Acute toxicity: Bis(2-propylheptyl)phthalate is of low acute oral, dermal and inhalation toxicity and is slightly irritating to eyes and skin. The result of the non-adjuvant skin sensitisation test provided for assessment was negative and additional information available in the EU report for DIDP indicates that the material has low sensitising potential.</p> <p>Repeat dose toxicity : Based on repeated dose studies using DIDP, the more complex analogue of the substance, the target organ in subacute and subchronic studies in rats is the liver, the effects observed being increased liver weight and changes in liver peroxisome proliferator enzyme activities. As the NOAELs derived are due to the latter, which is considered to be species-specific and of little relevance to humans, the NOAEL of 15 mg/kg/day from a 90-day dog study was used in the EU risk assessment. Effects, Chronic Exposure General liver damage reported in rodents and dogs fed DIDP; not a route of industrial exposure Sensitising not a sensitizer in humans or animals; very few reports of human sensitisation usually associated with monomers or oligomers in incompletely cured polymer, not the plasticiser Carcinogen/Tumorigen not considered a tumorigen or a carcinogen in humans or animals Reproductive Effect rodent fetotoxicity on prolonged feeding; no known effect in humans or animals Mutagen no known effect on humans or animals</p>	
2,2'-DIMORPHOLINODIETHYL ETHER	<p>Overexposure to most of these materials may cause adverse health effects.</p> <p>Many amine-based compounds can cause release of histamines, which, in turn, can trigger allergic and other physiological effects, including constriction of the bronchi or asthma and inflammation of the cavity of the nose. Whole-body symptoms include headache, nausea, faintness, anxiety, a decrease in blood pressure, rapid heartbeat, itching, reddening of the skin, urticaria (hives) and swelling of the face, which are usually transient.</p> <p>There are generally four routes of possible or potential exposure: inhalation, skin contact, eye contact, and swallowing.</p> <p>Inhalation: Inhaling vapours may result in moderate to severe irritation of the tissues of the nose and throat and can irritate the lungs. Higher concentrations of certain amines can produce severe respiratory irritation, characterized by discharge from the nose, coughing, difficulty in breathing and chest pain. No experimental evidence available for genotoxicity in vitro (Ames test negative). *BASF</p>	
DIISONONYL PHTHALATE	<p>[Huls] The effects of DINP on fertility-related parameters such as reduced testosterone content and production and altered reproductive organ weights (with or without histopathologies) have been demonstrated in rats. Although quantitatively being less potent, DINP has exhibited adverse effects on the male reproductive system and sexual differentiation during development in a number of rodent studies (e.g. increased nipple retention, testicular pathology and decreased AGD/AGI in male offspring), which are components of the antiandrogenic pattern observed with diethylhexyl phthalate (DEHP) (a known reproductive toxicant). Foetal expression of genes involved in androgen synthesis such as StAR and Cyp11a were also reduced. Considering the chemical composition of DINP, which is represented as mixed phthalates with side-chains made up of 5?10% methylethylhexyl, limited evidence of the toxicological properties of transitional phthalates may be expected at high doses of DINP tested The reduced pup weight was observed at approximately 100 mg/kg bw/d in both sexes, both in one- and two-generation reproductive studies in rats, in the absence of overt maternal toxicity. The pup weight reduction was also sustained and not considered solely related to low birth weight. In a post-natal toxicity study, reduced pup weight was also reduced at = 250 mg/kg bw/d. Overall, the available human data do not provide sufficient evidence for a causal relationship between exposure to DINP and adverse health effects in humans. There is also insufficient information to examine the mode of action of DINP on male reproductive tract development and sexual function in comparison with transitional phthalates. However, elements of the plausible mode of action for DINP effects on the male reproductive system, offspring growth and sexual differentiation are considered likely to be parallel in rats and humans if the exposure to DINP is high and within a critical window of development.</p>	
Woodstikk PU Gel D4 Polyurethane Adhesive (Aro-Bond DX9925) & 2,4'-DIPHENYLMETHANE DIISOCYANATE & 4,4'-DIPHENYLMETHANE DIISOCYANATE (MDI) & 2,2'-DIPHENYLMETHANE DIISOCYANATE	<p>Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant.</p> <p>Allergic reactions involving the respiratory tract are usually due to interactions between IgE antibodies and allergens and occur rapidly. Allergic potential of the allergen and period of exposure often determine the severity of symptoms. Some people may be genetically more prone than others, and exposure to other irritants may aggravate symptoms.</p> <p>Attention should be paid to atopic diathesis, characterised by increased susceptibility to nasal inflammation, asthma and eczema.</p> <p>Exogenous allergic alveolitis is induced essentially by allergen specific immune-complexes of the IgG type; cell-mediated reactions (T lymphocytes) may be involved. Such allergy is of the delayed type with onset up to four hours following exposure.</p>	
Woodstikk PU Gel D4 Polyurethane Adhesive (Aro-Bond DX9925) & 2,4'-DIPHENYLMETHANE DIISOCYANATE & 4,4'-DIPHENYLMETHANE DIISOCYANATE (MDI) & 2,2'-DIMORPHOLINODIETHYL ETHER & 2,2'-DIPHENYLMETHANE DIISOCYANATE	<p>The following information refers to contact allergens as a group and may not be specific to this product.</p> <p>Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type.</p>	

Woodstikk PU Gel D4 Polyurethane Adhesive (Aro-Bond DX9925)

Woodstikk PU Gel D4 Polyurethane Adhesive (Aro-Bond DX9925) & DIISODECYL PHTHALATE & DIISONONYL PHTHALATE	The material may produce peroxisome proliferation. Peroxisomes are single, membrane limited organelles in the cytoplasm that are found in the cells of animals, plants, fungi, and protozoa.
2,4'-DIPHENYLMETHANE DIISOCYANATE & 2,2'-DIPHENYLMETHANE DIISOCYANATE	No significant acute toxicological data identified in literature search.
2,4'-DIPHENYLMETHANE DIISOCYANATE & 4,4'-DIPHENYLMETHANE DIISOCYANATE (MDI) & 2,2'-DIPHENYLMETHANE DIISOCYANATE	Isocyanate vapours are irritating to the airways and can cause their inflammation, with wheezing, gasping, severe distress, even loss of consciousness and fluid in the lungs. Nervous system symptoms that may occur include headache, sleep disturbance, euphoria, inco-ordination, anxiety, depression and paranoia. Aromatic and aliphatic diisocyanates may cause airway toxicity and skin sensitization. Monomers and prepolymers exhibit similar respiratory effect. Of the several members of diisocyanates tested on experimental animals by inhalation and oral exposure, some caused cancer while others produced a harmless outcome.
DIISODECYL PHTHALATE & DIISONONYL PHTHALATE	High Molecular Weight Phthalate Esters (HMWPEs) Category The HMWPE group includes chemically similar substances produced from alcohols. These substances have been demonstrated to have few biological effects. They demonstrate minimal acute toxicity, with effect on the liver and kidney at high doses.

Acute Toxicity	✓	Carcinogenicity	✓
Skin Irritation/Corrosion	✓	Reproductivity	✗
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	✓
Respiratory or Skin sensitisation	✓	STOT - Repeated Exposure	✓
Mutagenicity	✗	Aspiration Hazard	✗

Legend: ✗ – Data either not available or does not fill the criteria for classification
 ✓ – Data available to make classification

11.2 Information on other hazards

11.2.1. Endocrine Disruption Properties

Many chemicals may mimic or interfere with the body's hormones, known as the endocrine system. Endocrine disruptors are chemicals that can interfere with endocrine (or hormonal) systems.

Endocrine disruptors interfere with the synthesis, secretion, transport, binding, action, or elimination of natural hormones in the body. Any system in the body controlled by hormones can be derailed by hormone disruptors. Specifically, endocrine disruptors may be associated with the development of learning disabilities, deformations of the body various cancers and sexual development problems.

Endocrine disrupting chemicals cause adverse effects in animals. But limited scientific information exists on potential health problems in humans. Because people are typically exposed to multiple endocrine disruptors at the same time, assessing public health effects is difficult.

11.2.2. Other Information

See Section 11.1

SECTION 12 Ecological information

12.1. Toxicity

Woodstikk PU Gel D4 Polyurethane Adhesive (Aro-Bond DX9925)	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
2,4'-diphenylmethane diisocyanate	Endpoint	Test Duration (hr)	Species	Value	Source
	NOEC(ECx)	504h	Crustacea	>=10mg/l	2
4,4'-diphenylmethane diisocyanate (MDI)	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96h	Fish	95.24-134.37mg/l	Not Available
	BCF	672h	Fish	61-150	7
	EC50	48h	Crustacea	>100mg/l	2
	NOEC(ECx)	504h	Crustacea	>=10mg/l	2
diisodecyl phthalate	Endpoint	Test Duration (hr)	Species	Value	Source
	BCF	1344h	Fish	<*3.6	7
	EC50(ECx)	72h	Algae or other aquatic plants	0.8mg/l	Not Available
	EC50	96h	Algae or other aquatic plants	>0.8mg/l	4
	EC50	72h	Algae or other aquatic plants	0.8mg/l	Not Available
	LC50	96h	Fish	>0.47mg/l	Not Available
	EC50	48h	Crustacea	>0.02mg/l	4
2,2'-dimorpholinodiethyl ether	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96h	Fish	>2150mg/l	2

Continued...

Woodstikk PU Gel D4 Polyurethane Adhesive (Aro-Bond DX9925)

	EC50	48h	Crustacea	>100mg/l	2
	NOEC(ECx)	48h	Crustacea	100mg/l	2
	EC50	72h	Algae or other aquatic plants	>100mg/l	2
2,2'-diphenylmethane diisocyanate	Endpoint	Test Duration (hr)	Species	Value	Source
	NOEC(ECx)	504h	Crustacea	>=10mg/l	2
diisononyl phthalate	Endpoint	Test Duration (hr)	Species	Value	Source
	NOEC(ECx)	504h	Crustacea	>0.034mg/l	1
	LC50	96h	Fish	>0.1mg/l	2
	EC50	72h	Algae or other aquatic plants	>88mg/l	2
	EC50	96h	Algae or other aquatic plants	>2.8mg/l	1
	EC50	48h	Crustacea	>0.086mg/l	1
Legend: <i>Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data</i>					

On the basis of available evidence concerning either toxicity, persistence, potential to accumulate and/or observed environmental fate and behaviour, the material may present a danger, immediate or long-term and/or delayed, to the structure and/or functioning of natural ecosystems.

For Isocyanate Monomers:

Environmental Fate: Isocyanates, (di- and polyfunctional isocyanates), are commonly used to make various polymers, such as polyurethanes. Polyurethanes find significant application in the manufacture of rigid and flexible foams. They are also used in the production of adhesives, elastomers, and coatings.

For Phthalate Esters:

Terrestrial Fate: Phthalate esters have been observed to broken down by a wide range of bacteria. Biodegradation is, therefore, expected to be the dominant fate in surface soils and sediments.

Little information is available on the fate of phthalate esters in soil, even though the primary point of entry, (landfills).

DO NOT discharge into sewer or waterways.

12.2. Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
2,4'-diphenylmethane diisocyanate	HIGH	HIGH
4,4'-diphenylmethane diisocyanate (MDI)	LOW (Half-life = 1 days)	LOW (Half-life = 0.24 days)
diisodecyl phthalate	HIGH	HIGH
2,2'-dimorpholinodiethyl ether	HIGH	HIGH
2,2'-diphenylmethane diisocyanate	HIGH	HIGH
diisononyl phthalate	HIGH	HIGH

12.3. Bioaccumulative potential

Ingredient	Bioaccumulation
2,4'-diphenylmethane diisocyanate	HIGH (LogKOW = 5.4481)
4,4'-diphenylmethane diisocyanate (MDI)	LOW (BCF = 15)
diisodecyl phthalate	HIGH (BCF = 3500)
2,2'-dimorpholinodiethyl ether	LOW (LogKOW = -1.3122)
2,2'-diphenylmethane diisocyanate	HIGH (LogKOW = 5.4481)
diisononyl phthalate	LOW (BCF = 183.8)

12.4. Mobility in soil

Ingredient	Mobility
2,4'-diphenylmethane diisocyanate	LOW (KOC = 384000)
4,4'-diphenylmethane diisocyanate (MDI)	LOW (KOC = 376200)
diisodecyl phthalate	LOW (KOC = 1589000)
2,2'-dimorpholinodiethyl ether	LOW (KOC = 10)
2,2'-diphenylmethane diisocyanate	LOW (KOC = 392000)
diisononyl phthalate	LOW (KOC = 467200)

12.5. Results of PBT and vPvB assessment

	P	B	T
Relevant available data	Not Available	Not Available	Not Available
PBT	✗	✗	✗

Continued...

Woodstikk PU Gel D4 Polyurethane Adhesive (Aro-Bond DX9925)

	P	B	T
vPvB	✗	✗	✗
PBT Criteria fulfilled?			No
vPvB			No

12.6. Endocrine Disruption Properties

The evidence linking adverse effects to endocrine disruptors is more compelling in the environment than it is in humans. Endocrine disruptors profoundly alter reproductive physiology of ecosystems and ultimately impact entire populations. Some endocrine-disrupting chemicals are slow to break-down in the environment. That characteristic makes them potentially hazardous over long periods of time. Some well established adverse effects of endocrine disruptors in various wildlife species include; eggshell-thinning, displayed of characteristics of the opposite sex and impaired reproductive development. Other adverse changes in wildlife species that have been suggested, but not proven include; reproductive abnormalities, immune dysfunction and skeletal deformities.

12.7. Other adverse effects

No evidence of ozone depleting properties were found in the current literature.

SECTION 13 Disposal considerations

13.1. Waste treatment methods

Product / Packaging disposal	<ul style="list-style-type: none"> Containers may still present a chemical hazard/ danger when empty. Return to supplier for reuse/ recycling if possible. <p>Otherwise:</p> <ul style="list-style-type: none"> If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. DO NOT allow wash water from cleaning or process equipment to enter drains. It may be necessary to collect all wash water for treatment before disposal. In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. DO NOT recycle spilled material. Consult State Land Waste Management Authority for disposal. Neutralise spill material carefully and decontaminate empty containers and spill residues with 10% ammonia solution plus detergent or a proprietary decontaminant prior to disposal.
Waste treatment options	Not Available
Sewage disposal options	Not Available

SECTION 14 Transport information

Labels Required

Marine Pollutant	NO
HAZCHEM	Not Applicable

Land transport (ADR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number	Not Applicable												
14.2. UN proper shipping name	Not Applicable												
14.3. Transport hazard class(es)	<table> <tr> <td>Class</td><td>Not Applicable</td></tr> <tr> <td>Subrisk</td><td>Not Applicable</td></tr> </table>	Class	Not Applicable	Subrisk	Not Applicable								
Class	Not Applicable												
Subrisk	Not Applicable												
14.4. Packing group	Not Applicable												
14.5. Environmental hazard	Not Applicable												
14.6. Special precautions for user	<table> <tr> <td>Hazard identification (Kemler)</td><td>Not Applicable</td></tr> <tr> <td>Classification code</td><td>Not Applicable</td></tr> <tr> <td>Hazard Label</td><td>Not Applicable</td></tr> <tr> <td>Special provisions</td><td>Not Applicable</td></tr> <tr> <td>Limited quantity</td><td>Not Applicable</td></tr> <tr> <td>Tunnel Restriction Code</td><td>Not Applicable</td></tr> </table>	Hazard identification (Kemler)	Not Applicable	Classification code	Not Applicable	Hazard Label	Not Applicable	Special provisions	Not Applicable	Limited quantity	Not Applicable	Tunnel Restriction Code	Not Applicable
Hazard identification (Kemler)	Not Applicable												
Classification code	Not Applicable												
Hazard Label	Not Applicable												
Special provisions	Not Applicable												
Limited quantity	Not Applicable												
Tunnel Restriction Code	Not Applicable												

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number	Not Applicable						
14.2. UN proper shipping name	Not Applicable						
14.3. Transport hazard class(es)	<table> <tr> <td>ICAO/IATA Class</td><td>Not Applicable</td></tr> <tr> <td>ICAO / IATA Subrisk</td><td>Not Applicable</td></tr> <tr> <td>ERG Code</td><td>Not Applicable</td></tr> </table>	ICAO/IATA Class	Not Applicable	ICAO / IATA Subrisk	Not Applicable	ERG Code	Not Applicable
ICAO/IATA Class	Not Applicable						
ICAO / IATA Subrisk	Not Applicable						
ERG Code	Not Applicable						
14.4. Packing group	Not Applicable						
14.5. Environmental hazard	Not Applicable						

Woodstikk PU Gel D4 Polyurethane Adhesive (Aro-Bond DX9925)

14.6. Special precautions for user	Special provisions	Not Applicable
	Cargo Only Packing Instructions	Not Applicable
	Cargo Only Maximum Qty / Pack	Not Applicable
	Passenger and Cargo Packing Instructions	Not Applicable
	Passenger and Cargo Maximum Qty / Pack	Not Applicable
	Passenger and Cargo Limited Quantity Packing Instructions	Not Applicable
	Passenger and Cargo Limited Maximum Qty / Pack	Not Applicable

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number	Not Applicable	
14.2. UN proper shipping name	Not Applicable	
14.3. Transport hazard class(es)	IMDG Class	Not Applicable
	IMDG Subrisk	Not Applicable
14.4. Packing group	Not Applicable	
14.5. Environmental hazard	Not Applicable	
14.6. Special precautions for user	EMS Number	Not Applicable
	Special provisions	Not Applicable
	Limited Quantities	Not Applicable

Inland waterways transport (ADN): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number	Not Applicable	
14.2. UN proper shipping name	Not Applicable	
14.3. Transport hazard class(es)	Not Applicable	Not Applicable
14.4. Packing group	Not Applicable	
14.5. Environmental hazard	Not Applicable	
14.6. Special precautions for user	Classification code	Not Applicable
	Special provisions	Not Applicable
	Limited quantity	Not Applicable
	Equipment required	Not Applicable
	Fire cones number	Not Applicable

14.7. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

14.8. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
2,4'-diphenylmethane diisocyanate	Not Available
4,4'-diphenylmethane diisocyanate (MDI)	Not Available
diisodecyl phthalate	Not Available
2,2'-dimorpholinodiethyl ether	Not Available
2,2'-diphenylmethane diisocyanate	Not Available
diisononyl phthalate	Not Available

14.9. Transport in bulk in accordance with the ICG Code

Product name	Ship Type
2,4'-diphenylmethane diisocyanate	Not Available
4,4'-diphenylmethane diisocyanate (MDI)	Not Available
diisodecyl phthalate	Not Available
2,2'-dimorpholinodiethyl ether	Not Available
2,2'-diphenylmethane diisocyanate	Not Available
diisononyl phthalate	Not Available

SECTION 15 Regulatory information

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

2,4'-diphenylmethane diisocyanate is found on the following regulatory lists	
Great Britain GB mandatory classification and labelling list (GB MCL)	UK Workplace Exposure Limits (WELs).
4,4'-diphenylmethane diisocyanate (MDI) is found on the following regulatory lists	
Great Britain GB mandatory classification and labelling list (GB MCL)	UK REACH grandfathered registrations notified substances list
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic	UK Workplace Exposure Limits (WELs).
diisodecyl phthalate is found on the following regulatory lists	
Chemical Footprint Project - Chemicals of High Concern List	UK REACH grandfathered registrations notified substances list
UK REACH Authorisation List (Annex XIV)	UK Workplace Exposure Limits (WELs).
UK REACH Candidate List of substances of very high concern (SVHC) for Authorisation	
2,2'-dimorpholinodiethyl ether is found on the following regulatory lists	
Not Applicable	
2,2'-diphenylmethane diisocyanate is found on the following regulatory lists	
Great Britain GB mandatory classification and labelling list (GB MCL)	UK Workplace Exposure Limits (WELs).
diisononyl phthalate is found on the following regulatory lists	
Chemical Footprint Project - Chemicals of High Concern List	UK REACH grandfathered registrations notified substances list
UK REACH Authorisation List (Annex XIV)	UK Workplace Exposure Limits (WELs).
UK REACH Candidate List of substances of very high concern (SVHC) for Authorisation	
This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable - : Directives 98/24/EC, - 92/85/EEC, - 94/33/EC, - 2008/98/EC, - 2010/75/EU; Commission Regulation (EU) 2020/878; Regulation (EC) No 1272/2008 as updated through ATPs.	

Information according to 2012/18/EU (Seveso III):

Seveso Category	Not Available
-----------------	---------------

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

ECHA SUMMARY

Ingredient	CAS number	Index No	ECHA Dossier
2,4'-diphenylmethane diisocyanate	5873-54-1	615-005-00-9	Not Available
Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Skin Irrit. 2; Skin Sens. 1; Eye Irrit. 2; Acute Tox. 4; Resp. Sens. 1; STOT SE 3; Carc. 2; STOT RE 2	GHS08; Dgr	H315; H317; H319; H332; H334; H335; H351; H373
2	Skin Irrit. 2; Skin Sens. 1; Eye Irrit. 2; Acute Tox. 4; Resp. Sens. 1; STOT SE 3; Carc. 2; STOT RE 2	GHS08; Dgr	H315; H317; H319; H332; H334; H335; H351; H373
Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.			
Ingredient	CAS number	Index No	ECHA Dossier
4,4'-diphenylmethane diisocyanate (MDI)	101-68-8	615-005-00-9	Not Available
Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Skin Irrit. 2; Skin Sens. 1; Eye Irrit. 2; Acute Tox. 4; Resp. Sens. 1; STOT SE 3; Carc. 2; STOT RE 2	GHS08; Dgr	H315; H317; H319; H332; H334; H335; H351; H373
2	Skin Sens. 1B; Eye Irrit. 2; Resp. Sens. 1; STOT SE 3; Carc. 2; STOT SE 3; Muta. 2; Acute Tox. 2; STOT RE 1; Aquatic Chronic 4	GHS08; Dgr; GHS06	H315; H317; H319; H334; H335; H351; H370; H330; H341; H372; H413
1	Skin Irrit. 2; Skin Sens. 1; Eye Irrit. 2; Acute Tox. 2; Resp. Sens. 1; STOT SE 3; Carc. 2; STOT RE 2	GHS08; GHS06; Dgr	H315; H317; H319; H330; H334; H335; H351; H373
2	Skin Irrit. 2; Skin Sens. 1; Eye Irrit. 2; Acute Tox. 2; Resp. Sens. 1; STOT SE 3; Carc. 2; STOT RE 2; STOT SE 3; Acute Tox. 4	GHS08; GHS06; Dgr	H315; H317; H319; H330; H334; H335; H351; H373; H370
Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.			
Ingredient	CAS number	Index No	ECHA Dossier
diisodecyl phthalate	26761-40-0	Not Available	Not Available
Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Not Classified	Not Available	Not Available
Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.			

Woodstikk PU Gel D4 Polyurethane Adhesive (Aro-Bond DX9925)

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
2	Aquatic Acute 1; Aquatic Chronic 1; Skin Irrit. 2; Eye Irrit. 2	GHS09; Wng; GHS08	H410; H400; H315; H319
1	Not Classified	Not Available	Not Available
2	Skin Irrit. 2; Eye Irrit. 2	GHS07; Wng	H315; H319

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
2,2'-dimorpholinodiethyl ether	6425-39-4	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Eye Irrit. 2	GHS07; Wng	H319
2	Eye Irrit. 2; Skin Irrit. 2; Acute Tox. 4	GHS07; Wng; GHS09	H319; H315; H302; H413; H317

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
2,2'-diphenylmethane diisocyanate	2536-05-2	615-005-00-9	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Skin Irrit. 2; Skin Sens. 1; Eye Irrit. 2; Acute Tox. 4; Resp. Sens. 1; STOT SE 3; Carc. 2; STOT RE 2	GHS08; Dgr	H315; H317; H319; H332; H334; H335; H351; H373
2	Skin Irrit. 2; Skin Sens. 1; Eye Irrit. 2; Resp. Sens. 1; STOT SE 3; Carc. 2; STOT RE 2; Acute Tox. 3	GHS08; Dgr; GHS06	H315; H317; H319; H334; H335; H351; H373; H331

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
diisononyl phthalate	28553-12-0	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Not Classified	Not Available	Not Available
2	Acute Tox. 4; Aquatic Acute 1; Repr. 2; Resp. Sens. 1A	GHS09; GHS08; Dgr	H332; H400; H361; H334
1	Not Classified	Not Available	Not Available
2	Aquatic Acute 1; Repr. 2; Skin Irrit. 2; Eye Irrit. 2	GHS09; Wng; GHS08	H400; H361; H315; H319

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

National Inventory Status

National Inventory	Status
Australia - AIC / Australia Non-Industrial Use	Yes
Canada - DSL	Yes
Canada - NDSL	No (2,4'-diphenylmethane diisocyanate; 4,4'-diphenylmethane diisocyanate (MDI); diisodecyl phthalate; 2,2'-dimorpholinodiethyl ether; 2,2'-diphenylmethane diisocyanate; diisononyl phthalate)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	Yes
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	No (2,4'-diphenylmethane diisocyanate; 2,2'-dimorpholinodiethyl ether; 2,2'-diphenylmethane diisocyanate)
Vietnam - NCI	Yes
Russia - FBEPH	No (2,2'-diphenylmethane diisocyanate)
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.

SECTION 16 Other information

Revision Date	08/02/2023
Initial Date	08/02/2023

Full text Risk and Hazard codes

H302	Harmful if swallowed.
------	-----------------------

Woodstikk PU Gel D4 Polyurethane Adhesive (Aro-Bond DX9925)

H330	Fatal if inhaled.
H331	Toxic if inhaled.
H341	Suspected of causing genetic defects.
H361	Suspected of damaging fertility or the unborn child.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H370	Causes damage to organs.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

SDS Version Summary

Version	Date of Update	Sections Updated
0.2	08/02/2023	Classification, Ingredients, Physical Properties

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios.

For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:

EN 166 Personal eye-protection
EN 340 Protective clothing
EN 374 Protective gloves against chemicals and micro-organisms
EN 13832 Footwear protecting against chemicals
EN 133 Respiratory protective devices

Definitions and abbreviations

PC—TWA: Permissible Concentration-Time Weighted Average
PC—STEL: Permissible Concentration-Short Term Exposure Limit
IARC: International Agency for Research on Cancer
ACGIH: American Conference of Governmental Industrial Hygienists
STEL: Short Term Exposure Limit
TEEL: Temporary Emergency Exposure Limit
IDLH: Immediately Dangerous to Life or Health Concentrations
ES: Exposure Standard
OSF: Odour Safety Factor
NOAEL :No Observed Adverse Effect Level
LOAEL: Lowest Observed Adverse Effect Level
TLV: Threshold Limit Value
LOD: Limit Of Detection
OTV: Odour Threshold Value
BCF: BioConcentration Factors
BEI: Biological Exposure Index
AIIIC: Australian Inventory of Industrial Chemicals
DSL: Domestic Substances List
NDSL: Non-Domestic Substances List
IECSC: Inventory of Existing Chemical Substance in China
EINECS: European INventory of Existing Commercial chemical Substances
ELINCS: European List of Notified Chemical Substances
NLP: No-Longer Polymers
ENCS: Existing and New Chemical Substances Inventory
KECI: Korea Existing Chemicals Inventory
NZIoC: New Zealand Inventory of Chemicals
PICCS: Philippine Inventory of Chemicals and Chemical Substances
TSCA: Toxic Substances Control Act
TCSI: Taiwan Chemical Substance Inventory
INSQ: Inventario Nacional de Sustancias Químicas
NCI: National Chemical Inventory
FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Classification according to regulation (EC) No 1272/2008 [CLP] and amendments	Classification Procedure
Sensitisation (Respiratory) Category 1, H334	Minimum classification
Specific Target Organ Toxicity - Repeated Exposure Category 2, H373	Calculation method
Acute Toxicity (Inhalation) Category 4, H332	Expert judgement

Woodstikk PU Gel D4 Polyurethane Adhesive (Aro-Bond DX9925)

Classification according to regulation (EC) No 1272/2008 [CLP] and amendments	Classification Procedure
Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3 , H335	Minimum classification
Skin Corrosion/Irritation Category 2, H315	Minimum classification
Serious Eye Damage/Eye Irritation Category 2, H319	Minimum classification
Sensitisation (Skin) Category 1, H317	Calculation method
Carcinogenicity Category 2, H351	Calculation method

Powered by AuthorITe, from Chemwatch.