



Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the REACH Regulation (1907/2006), as amended for GB.

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

1.1. Product identifier

3M(TM) Scotch-Weld(TM) Urethane Adhesive DP604NS Black and Urethane Adhesive 604NS Black, Part A

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

Identified uses

Structural adhesive.

1.3. Details of the supplier of the safety data sheet

Address: 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.
Telephone: +44 (0)1344 858 000
E Mail: tox.uk@mmm.com
Website: www.3M.com/uk

1.4. Emergency telephone number

+44 (0)1344 858 000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

The retained CLP Regulation (EU) No 1272/2008 as amended for Great Britain

The health and environmental classifications of this material have been derived using the calculation method, except in cases where test data are available or the physical form impacts classification. Classification(s) based on test data or physical form are noted below, if applicable.

CLASSIFICATION:

Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315
Serious Eye Damage/Eye Irritation, Category 2 - Eye Irrit. 2; H319
Respiratory Sensitization, Category 1 - Resp. Sens. 1; H334
Skin Sensitization, Category 1 - Skin Sens. 1; H317
Carcinogenicity, Category 2 - Carc. 2; H351
Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H335

For full text of H phrases, see Section 16.

2.2. Label elements

The retained CLP Regulation (EU) No 1272/2008 as amended for Great Britain

SIGNAL WORD

DANGER.

Symbols

GHS07 (Exclamation mark) | GHS08 (Health Hazard) |

Pictograms



Ingredient	CAS Nbr	EC No.	% by Wt
4,4'-methylenedi(cyclohexyl isocyanate)	5124-30-1	225-863-2	15 - 40
4,4'-Diisocyanatodiphenylmethane Polymer	25686-28-6	500-040-3	1 - 10

HAZARD STATEMENTS:

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.

PRECAUTIONARY STATEMENTS

Prevention:

P261A	Avoid breathing vapours.
P280K	Wear protective gloves and respiratory protection.

Response:

P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician.

For containers not exceeding 125 ml the following Hazard and Precautionary statements may be used:

<=125 ml Hazard statements

H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.

<=125 ml Precautionary statements

Prevention:

P261A Avoid breathing vapours.
P280K Wear protective gloves and respiratory protection.

Response:

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician.

34% of the mixture consists of components of unknown acute inhalation toxicity.
Contains 59% of components with unknown hazards to the aquatic environment.

Information required per Regulation (EU) 2020/1149, amendment to REACH Regulation (1907/2006) as amended for Great Britain, as regards diisocyanates:

As from 24 August 2023 adequate training is required before industrial or professional use. Further information can be found at feica.eu/Puinfo

2.3. Other hazards

Persons previously sensitised to isocyanates may develop a cross-sensitisation reaction to other isocyanates.
This material does not contain any substances that are assessed to be a PBT or vPvB

SECTION 3: Composition/information on ingredients
3.1. Substances

Not applicable

3.2. Mixtures

Ingredient	Identifier(s)	%	Classification according to Regulation (EC) No. 1272/2008 [CLP], as amended for GB
Methyloxirane, polymer with oxirane, ether with 1,2,3-propanetriol (3:1), polymer with 1,1'-methylenebis[4-isocyanatocyclohexane]	(CAS-No.) 67837-35-8	40 - 70	Substance not classified as hazardous
4,4'-methylenedi(cyclohexyl isocyanate)	(CAS-No.) 5124-30-1 (EC-No.) 225-863-2	15 - 40	Acute Tox. 2, H330 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335 Nota 2
4,4'-Diisocyanatodiphenylmethane Polymer	(CAS-No.) 25686-28-6 (EC-No.) 500-040-3	1 - 10	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
Carbon black	(CAS-No.) 1333-86-4 (EC-No.) 215-609-9	0.05 - 0.5	Substance with a national occupational exposure limit

Please see section 16 for the full text of any H statements referred to in this section

Specific Concentration Limits

Ingredient	Identifier(s)	Specific Concentration Limits
4,4'-Diisocyanatodiphenylmethane Polymer	(CAS-No.) 25686-28-6 (EC-No.) 500-040-3	(C >= 5%) Skin Irrit. 2, H315 (C >= 5%) Eye Irrit. 2, H319 (C >= 0.1%) Resp. Sens. 1, H334 (C >= 5%) STOT SE 3, H335
4,4'-methylenedi(cyclohexyl isocyanate)	(CAS-No.) 5124-30-1 (EC-No.) 225-863-2	(C >= 0.5%) Resp. Sens. 1, H334 (C >= 0.5%) Skin Sens. 1, H317

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

SECTION 4: First aid measures**4.1. Description of first aid measures****Inhalation**

Remove person to fresh air. If you feel unwell, get medical attention.

Skin contact

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye contact

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

If swallowed

Rinse mouth. If you feel unwell, get medical attention.

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

The most important symptoms and effects based on the GB CLP classification include:

Irritating to the respiratory tract (coughing, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain).

Allergic respiratory reaction (difficulty breathing, wheezing, cough, and tightness of chest). Irritation to the skin (localized redness, swelling, itching, and dryness). Allergic skin reaction (redness, swelling, blistering, and itching). Serious irritation to the eyes (significant redness, swelling, pain, tearing, and impaired vision).

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

Not applicable

SECTION 5: Fire-fighting measures**5.1. Extinguishing media**

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products**Substance**

Aldehydes.

Condition

During combustion.

Isocyanates
Carbon monoxide
Carbon dioxide.
Hydrogen cyanide.
Oxides of nitrogen.
Toxic vapour, gas, particulate.

During combustion.
During combustion.
During combustion.
During combustion.
During combustion.
During combustion.

5.3. Advice for fire-fighters

Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment. For larger spills, cover drains and build dykes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up

Contain spill. Pour isocyanate decontaminant solution (90% water, 8% concentrated ammonia, 2% detergent) on spill and allow to react for 10 minutes. Or pour water on spill and allow to react for more than 30 minutes. Cover with absorbent material. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a container approved for transportation by appropriate authorities, but do not seal the container for 48 hours to avoid pressure build-up. Clean up residue with an appropriate solvent selected by a qualified and authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. Dispose of collected material as soon as possible.

6.4. Reference to other sections

Refer to Section 8 and Section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

For industrial/occupational use only. Not for consumer sale or use. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed to prevent contamination with water or air. If contamination is suspected, do not reseal container. Store away from acids. Store away from strong bases.

7.3. Specific end use(s)

See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Carbon black	1333-86-4	UK HSC	TWA: 3.5 mg/m ³ ; STEL: 7 mg/m ³	
Free isocyanates	5124-30-1	UK HSC	TWA(as NCO):0.02 mg/m ³ ; STEL(as NCO):0.07 mg/m ³	Respiratory Sensitizer

UK HSC : UK Health and Safety Commission

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

Biological limit values

Ingredient	CAS Nbr	Agency	Determinant	Biological Specimen	Sampling Time	Value	Additional comments
Free isocyanates	5124-30-1	UK EH40 BMGVs	Isocyanate-derived diamine	Creatinine in urine	EPE	1 umol/mol	

UK EH40 BMGVs : UK. EH40 Biological Monitoring Guidance Values (BMGVs)

EPE: At the end of the period of exposure.

8.2. Exposure controls**8.2.1. Engineering controls**

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)**Eye/face protection**

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Safety glasses with side shields.

Indirect vented goggles.

Applicable Norms/Standards

Use eye protection conforming to EN 166

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.

Gloves made from the following material(s) are recommended:

Material	Thickness (mm)	Breakthrough Time
Butyl rubber.	No data available	No data available
Fluoroelastomer	No data available	No data available
Nitrile rubber.	No data available	No data available

Applicable Norms/Standards

Use gloves tested to EN 374

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for organic vapours and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

Applicable Norms/Standards

Use a respirator conforming to EN 140 or EN 136: filter types A & P

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Specific Physical Form:	Viscous liquid
Colour	Black
Odor	Low Odor
Odour threshold	No data available.
Melting point/freezing point	No data available.
Boiling point/boiling range	>=204.4 °C
Flammability (solid, gas)	Not applicable.
Flammable Limits(LEL)	No data available.
Flammable Limits(UEL)	No data available.
Flash point	>=143.3 °C [Test Method: Tagliabue closed cup]
Autoignition temperature	No data available.
Decomposition temperature	No data available.
pH	substance/mixture is non-soluble (in water)
Kinematic Viscosity	1,894 mm ² /sec
Water solubility	Negligible
Solubility- non-water	No data available.
Partition coefficient: n-octanol/water	No data available.
Vapour pressure	<=0 Pa [@ 20 °C]
Density	1.056 g/ml [Ref Std: WATER=1]
Relative density	1.056 [Ref Std: WATER=1]
Relative Vapour Density	>=1 [Ref Std: AIR=1]

9.2. Other information

9.2.2 Other safety characteristics

EU Volatile Organic Compounds	No data available.
Evaporation rate	<=1 [Details: Gels with exposure to humidity.]
Molecular weight	No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

10.2 Chemical stability

Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

Heat is generated during cure. Do not cure a mass larger than 50 grams in a confined space to prevent a premature exothermic reaction with production of intense heat and smoke.

10.5 Incompatible materials

Water

Strong acids.

Strong bases.

Reaction with water, alcohols, and amines is not hazardous if container can vent to the atmosphere to prevent pressure buildup.

10.6 Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not agree with the material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from 3M assessments.

11.1. Information on hazard classes as defined in the retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain.

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation

Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Allergic respiratory reaction: Signs/symptoms may include difficulty breathing, wheezing, cough, and tightness of chest. May cause additional health effects (see below).

Skin contact

Skin Irritation: Signs/symptoms may include localised redness, swelling, itching, dryness, cracking, blistering, and pain. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye contact

Severe eye irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea.

Additional Health Effects:

Prolonged or repeated exposure may cause target organ effects:

Respiratory effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish coloured skin (cyanosis), sputum production, changes in lung function tests, and respiratory failure.

Additional information:

Persons previously sensitised to isocyanates may develop a cross-sensitisation reaction to other isocyanates.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Inhalation-Vapour(4 hr)		No data available; calculated ATE >50 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
4,4'-methylenedi(cyclohexyl isocyanate)	Dermal	Rat	LD50 > 7,000 mg/kg
4,4'-methylenedi(cyclohexyl isocyanate)	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.33 mg/l
4,4'-methylenedi(cyclohexyl isocyanate)	Ingestion	Rat	LD50 18,200 mg/kg
4,4'-Diisocyanatodiphenylmethane Polymer	Dermal	Rabbit	LD50 > 5,000 mg/kg
4,4'-Diisocyanatodiphenylmethane Polymer	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.368 mg/l
4,4'-Diisocyanatodiphenylmethane Polymer	Ingestion	Rat	LD50 31,600 mg/kg
Carbon black	Dermal	Rabbit	LD50 > 3,000 mg/kg
Carbon black	Ingestion	Rat	LD50 > 8,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
4,4'-methylenedi(cyclohexyl isocyanate)	Rabbit	Irritant
4,4'-Diisocyanatodiphenylmethane Polymer	official classification	Irritant
Carbon black	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
4,4'-methylenedi(cyclohexyl isocyanate)	Rabbit	Mild irritant
4,4'-Diisocyanatodiphenylmethane Polymer	official classification	Severe irritant
Carbon black	Rabbit	No significant irritation

Skin Sensitisation

Name	Species	Value
4,4'-methylenedi(cyclohexyl isocyanate)	Human and animal	Sensitising
4,4'-Diisocyanatodiphenylmethane Polymer	official classification	Sensitising

Respiratory Sensitisation

Name	Species	Value
4,4'-methylenedi(cyclohexyl isocyanate)	Professio	Sensitising

	nal judgement	
4,4'-Diisocyanatodiphenylmethane Polymer	Human	Sensitising

Germ Cell Mutagenicity

Name	Route	Value
4,4'-methylenedi(cyclohexyl isocyanate)	In Vitro	Not mutagenic
4,4'-Diisocyanatodiphenylmethane Polymer	In Vitro	Some positive data exist, but the data are not sufficient for classification
Carbon black	In Vitro	Not mutagenic
Carbon black	In vivo	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
4,4'-Diisocyanatodiphenylmethane Polymer	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
Carbon black	Dermal	Mouse	Not carcinogenic
Carbon black	Ingestion	Mouse	Not carcinogenic
Carbon black	Inhalation	Rat	Carcinogenic.

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
4,4'-methylenedi(cyclohexyl isocyanate)	Inhalation	Not classified for female reproduction	Rat	NOAEL 6 mg/m ³	premating into lactation
4,4'-methylenedi(cyclohexyl isocyanate)	Inhalation	Not classified for male reproduction	Rat	NOAEL 6 mg/m ³	28 days
4,4'-methylenedi(cyclohexyl isocyanate)	Inhalation	Not classified for development	Rat	NOAEL 6 mg/m ³	during gestation
4,4'-Diisocyanatodiphenylmethane Polymer	Inhalation	Not classified for development	Rat	NOAEL 0.004 mg/l	during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
4,4'-methylenedi(cyclohexyl isocyanate)	Inhalation	respiratory irritation	May cause respiratory irritation	Rat	NOAEL not available	
4,4'-Diisocyanatodiphenylmethane Polymer	Inhalation	respiratory irritation	May cause respiratory irritation	official classification	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
4,4'-methylenedi(cyclohexyl isocyanate)	Inhalation	respiratory system	Not classified	Rat	NOAEL 3 mg/m ³	90 days
4,4'-methylenedi(cyclohexyl isocyanate)	Inhalation	heart skin endocrine system gastrointestinal tract bone, teeth, nails, and/or hair hematopoietic system liver immune system	Not classified	Rat	NOAEL 18 mg/m ³	90 days

		muscles nervous system eyes kidney and/or bladder vascular system				
4,4'-Diisocyanatodiphenylmethane Polymer	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.004 mg/l	13 weeks
Carbon black	Inhalation	pneumoconiosis	Not classified	Human	NOAEL Not available	occupational exposure

Aspiration Hazard

For the component/components, either no data is currently available or the data is not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

11.2. Information on other hazards

This material does not contain any substances that are assessed to be an endocrine disruptor for human health.

SECTION 12: Ecological information

The information below may not agree with the material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

12.1. Toxicity

No product test data available.

Material	CAS #	Organism	Type	Exposure	Test endpoint	Test result
Methyloxirane, polymer with oxirane, ether with 1,2,3-propanetriol (3:1), polymer with 1,1'-methylenebis[4-isocyanatocyclohexane]	67837-35-8	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
4,4'-methylenedi(cyclohexyl isocyanate)	5124-30-1	Water flea	Estimated	48 hours	EC50	7.07 mg/l
4,4'-methylenedi(cyclohexyl isocyanate)	5124-30-1	Activated sludge	Experimental	3 hours	EC50	19 mg/l
4,4'-methylenedi(cyclohexyl isocyanate)	5124-30-1	Green algae	Experimental	72 hours	EC50	>5 mg/l
4,4'-methylenedi(cyclohexyl isocyanate)	5124-30-1	Zebra Fish	Experimental	96 hours	LC50	1.2 mg/l
4,4'-methylenedi(cyclohexyl isocyanate)	5124-30-1	Green algae	Experimental	72 hours	EC10	1.2 mg/l
4,4'-Diisocyanatodiphenylmethane Polymer	25686-28-6	Green algae	Estimated	72 hours	EC50	>1,640 mg/l
4,4'-Diisocyanatodiphenylmethane	25686-28-6	Medaka	Estimated	96 hours	LC50	>3,000 mg/l

3M(TM) Scotch-Weld(TM) Urethane Adhesive DP604NS Black and Urethane Adhesive 604NS Black, Part A

Polymer						
4,4'-Diisocyanatodiphenylmethane Polymer	25686-28-6	Water flea	Estimated	24 hours	EC50	>1,000 mg/l
4,4'-Diisocyanatodiphenylmethane Polymer	25686-28-6	Green algae	Estimated	72 hours	NOEC	1,640 mg/l
4,4'-Diisocyanatodiphenylmethane Polymer	25686-28-6	Water flea	Estimated	21 days	NOEC	>=10 mg/l
Carbon black	1333-86-4	Activated sludge	Experimental	3 hours	EC50	>=100 mg/l
Carbon black	1333-86-4	N/A	Data not available or insufficient for classification	N/A	N/A	N/A

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Methyloxirane, polymer with oxirane, ether with 1,2,3-propanetriol (3:1), polymer with 1,1'-methylenebis[4-isocyanatocyclohexane]	67837-35-8	Data not available or insufficient	N/A	N/A	N/A	N/A
4,4'-methylenedi(cyclohexyl isocyanate)	5124-30-1	Experimental Biodegradation	28 days	BOD	0 %BOD/ThOD	OECD 301F - Manometric respirometry
4,4'-methylenedi(cyclohexyl isocyanate)	5124-30-1	Experimental Hydrolysis		Hydrolytic half-life	1.97 hours (t 1/2)	
4,4'-Diisocyanatodiphenylmethane Polymer	25686-28-6	Estimated Hydrolysis		Hydrolytic half-life	20 hours (t 1/2)	
Carbon black	1333-86-4	Data not available or insufficient	N/A	N/A	N/A	N/A

12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
Methyloxirane, polymer with oxirane, ether with 1,2,3-propanetriol (3:1), polymer with 1,1'-methylenebis[4-isocyanatocyclohexane]	67837-35-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
4,4'-methylenedi(cyclohexyl isocyanate)	5124-30-1	Estimated Bioconcentration		Log Kow	2.03	
4,4'-Diisocyanatodiphenylmethane Polymer	25686-28-6	Estimated BCF - Fish	28 days	Bioaccumulation factor	200	OECD305-Bioconcentration
Carbon black	1333-86-4	Data not available or insufficient for	N/A	N/A	N/A	N/A

		classification				
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12.4. Mobility in soil

No test data available.

12.5. Results of the PBT and vPvB assessment

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

12.6. Other adverse effects

This material does not contain any substances that are assessed to be an endocrine disruptor for environmental effects

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Dispose of completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

EU waste code (product as sold)

08 04 09* Waste adhesives and sealants containing organic solvents or other dangerous substances
20 01 27* Paint, inks, adhesives and resins containing dangerous substances

SECTION 14: Transportation information

	Ground Transport (ADR)	Air Transport (IATA)	Marine Transport (IMDG)
14.1 UN number	Not applicable.	Not applicable.	Not applicable.
14.2 UN proper shipping name	Not applicable.	Not applicable.	Not applicable.
14.3 Transport hazard class(es)	Not applicable.	Not applicable.	Not applicable.
14.4 Packing group	Not applicable.	Not applicable.	Not applicable.
14.5 Environmental hazards	Not applicable.	Not applicable.	Not applicable.
14.6 Special precautions for user	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.
14.7 Transport in bulk	No data available.	No data available.	No data available.

according to Annex II of Marpol 73/78 and IBC Code			
Control Temperature	Not applicable.	Not applicable.	Not applicable.
Emergency Temperature	Not applicable.	Not applicable.	Not applicable.
ADR Classification Code	M6	Not applicable.	Not applicable.
IMDG Segregation Code	Not applicable.	Not applicable.	NONE

Please contact the address or phone number listed on the first page of the SDS for additional information on the transport/shipment of the material by rail (RID) or inland waterways (ADN).

SECTION 15: Regulatory information

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

Carcinogenicity

<u>Ingredient</u>	<u>CAS Nbr</u>	<u>Classification</u>	<u>Regulation</u>
4,4'-Diisocyanatodiphenylmethane Polymer	25686-28-6	Carc. 2	3M classified according to the retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain
Carbon black	1333-86-4	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

Restrictions on the manufacture, placing on the market and use:

The following substance(s) contained in this product is/are subject to Annex XVII of regulation (EC) 1907/2006, as amended for GB, with regard to restrictions on the manufacture, placing on the market and use when present in certain dangerous conditions. Users of this product are required to comply with the restrictions placed upon it by the aforementioned provision.

<u>Ingredient</u>	<u>CAS Nbr</u>
4,4'-methylenedi(cyclohexyl isocyanate)	5124-30-1

Restriction status: listed in UK REACH Annex XVII

Restricted uses: See Annex XVII to Regulation (EC) No 1907/2006 as amended for Great Britain for Conditions of Restriction

Global inventory status

Contact 3M for more information. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory. The components of this product are in

compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

COMAH Regulation, SI 2015/483

Seveso hazard categories, Annex 1, Part 1

None

Seveso named dangerous substances, Annex 1, Part 2

Dangerous Substances	Identifier(s)	Qualifying quantity (tonnes) for the application of	
		Lower-tier requirements	Upper-tier requirements
4,4'-methylenedi(cyclohexyl isocyanate)	5124-30-1	50	200

Regulation (EU) No 649/2012, as amended for GB

No chemicals listed

15.2. Chemical Safety Assessment

A chemical safety assessment has not been carried out for this substance/mixture in accordance with Regulation (EC) No 1907/2006, as amended for GB.

SECTION 16: Other information

List of relevant H statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.

Revision information:

GB Section 02: CLP Ingredient table information was added.
 GB Section 02: Other hazards phrase information was added.
 GB Section 04: First Aid - Symptoms and Effects (GB CLP) information was added.
 GB Section 04: Information on toxicological effects information was added.
 GB Section 12: Classification Warning information was added.
 GB Section 15: Carcinogenicity information information was added.
 GB Section 15: Chemical Safety Assessment information was added.
 GBSDS Section 14 Transport in bulk - Main Heading information was added.
 GBSDS Section 14 UN Number information was added.
 CLP: Ingredient table information was deleted.
 Label: CLP Percent Unknown information was deleted.
 Section 02: Label Elements: GB Percent Unknown information was added.
 Section 2: Other hazards phrase information was deleted.
 Section 3: Composition/ Information of ingredients table information was added.
 Section 3: Composition/ Information of ingredients table information was deleted.
 Section 03: SCL table information was added.
 Section 03: SCL table information was deleted.
 Section 04: First Aid - Symptoms and Effects (CLP) information was deleted.

Section 04: Information on toxicological effects information was deleted.

Section 7: Precautions safe handling information information was modified.

Section 8: Eye/face protection information information was modified.

Section 8: Occupational exposure limit table information was modified.

Section 09: Kinematic Viscosity information information was modified.

Section 9: Vapour density value information was modified.

Section 11: Acute Toxicity table information was modified.

Section 11: Aspiration Hazard Table information was deleted.

Section 11: Aspiration Hazard text information was added.

Section 11: Carcinogenicity Table information was modified.

Section 11: Classification disclaimer information was deleted.

Section 11: GB Classification disclaimer information was added.

Section 11: GB No endocrine disruptor information available warning information was added.

Section 11: Germ Cell Mutagenicity Table information was modified.

Section 11: Health Effects - Ingestion information information was modified.

Section 11: No endocrine disruptor information available warning information was deleted.

Section 11: Reproductive Toxicity Table information was modified.

Section 11: Reproductive/developmental effects information information was deleted.

Section 11: Serious Eye Damage/Irritation Table information was modified.

Section 11: Skin Corrosion/Irritation Table information was modified.

Section 11: Skin Sensitization Table information was modified.

Section 11: Target Organs - Repeated Table information was modified.

Section 11: Target Organs - Single Table information was modified.

Section 12: 12.6. Endocrine Disrupting Properties information was deleted.

Section 12: 12.6. Other adverse effects information was added.

Section 12: 12.7. Other adverse effects information was deleted.

Section 12: Classification Warning information was deleted.

Section 12: Component ecotoxicity information information was modified.

Section 12: Mobility in soil information information was deleted.

Prints No Data if Adverse effects information is not present information was deleted.

Section 12: No Data text for mobility in soil information was added.

Section 12: No endocrine disruptor information available warning information was added.

Section 12: No endocrine disruptor information available warning information was deleted.

Section 12: Persistence and Degradability information information was modified.

Section 12: Bioaccumulative potential information information was modified.

Section 13: Standard Phrase Category Waste GHS information was modified.

Section 14 Classification Code – Regulation Data information was modified.

Section 14 Control Temperature – Regulation Data information was modified.

Section 14 Emergency Temperature – Regulation Data information was modified.

Section 14 Hazard Class + Sub Risk – Regulation Data information was modified.

Section 14 Hazardous/Not Hazardous for Transportation information was modified.

Section 14 Other Dangerous Goods – Regulation Data information was modified.

Section 14 Packing Group – Regulation Data information was modified.

Section 14 Proper Shipping Name information was modified.

Section 14 Segregation – Regulation Data information was modified.

Section 14 Marine transport in bulk according to IMO instruments – Main Heading information was deleted.

Section 14 UN Number Column data information was modified.

Section 14 UN Number information was deleted.

Section 14: Transportation classification information was deleted.

Section 15: Carcinogenicity information information was deleted.

Section 15: Chemical Safety Assessment information was deleted.

Section 15: Restrictions on manufacture ingredients information information was modified.

Section 15: Seveso Substance Text information was added.

Section 15: Seveso Substance Text information was deleted.

Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material. information was added.

Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material. information was deleted.

Section 16: Web address information was added.

Section 16: Web address information was deleted.

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