

Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

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

1.1. Product identifier

3M 06560 Polyurethane Sealer 4200-FC White

Product Identification Numbers

FS-9100-2333-2

7000079889

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

Identified uses

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

CLP REGULATION (EC) No 1272/2008

CLASSIFICATION:

Respiratory Sensitization, Category 1 - Resp. Sens. 1; H334 Skin Sensitization, Category 1A - Skin Sens. 1A; H317

Hazardous to the Aquatic Environment (Chronic), Category 3 - Aquatic Chronic 3; H412

For full text of H phrases, see Section 16.

2.2. Label elements

CLP REGULATION (EC) No 1272/2008

SIGNAL WORD

DANGER.

Symbols:

GHS08 (Health Hazard)

Pictograms



Ingredients:

Ingredient	CAS Nbr	EC No.	% by Wt
4,4'-methylenediphenyl diisocyanate	101-68-8	202-966-0	0.1 - 1
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-	-	915-687-0	0.1 - 1
piperidyl) sebacate and Methyl 1,2,2,6,6-penta	methyl-		
4-piperidyl sebacate			

HAZARD STATEMENTS:

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

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

General:

P102 Keep out of reach of children.

Prevention:

P261A Avoid breathing vapours. P280E Wear protective gloves.

Response:

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

P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician.

Disposal:

P501 Dispose of contents/container in accordance with applicable local/regional/national/international

regulations.

28% of the mixture consists of components of unknown acute inhalation toxicity.

Notes on labelling

Flam. Liq. 3 not assigned since product does not support combustion.

2.3. Other hazards

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

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	EC No.	REACH Registration No.	% by Wt	Classification
Urethane polymer	68130-40-5			30 - 4	O Substance not classified as hazardous
Sulphonic acids, C10-21-alkane, phenyl esters	91082-17-6	293-728-5		20 - 3	O Substance not classified as hazardous
Poly(Vinyl Chloride)	9002-86-2	618-338-8			O Substance with a Community level exposure limit in the workplace
Xylene	1330-20-7	215-535-7		5 - 10	Flam. Liq. 3, H226; Acute Tox. 4, H332; Acute Tox. 4, H312; Skin Irrit. 2, H315 - Nota C Aquatic Chronic 3, H412 Asp. Tox. 1, H304; Eye Irrit. 2, H319; STOT SE 3, H335; STOT RE 2, H373
Ethylbenzene	100-41-4	202-849-4		1 - 5	Flam. Liq. 2, H225; Acute Tox. 4, H332; Asp. Tox. 1, H304; STOT RE 2, H373 Aquatic Chronic 3, H412
Calcium Oxide	1305-78-8	215-138-9		1 - 5	EUH071; Skin Corr. 1C, H314
Titanium dioxide	13463-67-7	236-675-5		1 - 5	Substance with a Community level exposure limit in the workplace
Distillates (petroleum), hydrotreated light	64742-47-8	265-149-8		1 - 5	Asp. Tox. 1, H304 Aquatic Chronic 2, H411 Flam. Liq. 3, H226; Skin Irrit. 2, H315; STOT SE 3, H336
Toluene-4-sulphonamide	70-55-3	200-741-1		0.1 -	Substance not classified as hazardous
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate		915-687-0		0.1 -	Aquatic Acute 1, H400,M=1; Aquatic Chronic 1, H410,M=1 Skin Sens. 1A, H317
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	2530-83-8	219-784-2		0.1 -	Eye Dam. 1, H318
4,4'-methylenediphenyl diisocyanate	101-68-8	202-966-0		0.1 -	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 - Nota 2,C

Note: Any entry in the EC# column that begins with the numbers 6, 7, 8, or 9 are a Provisional List Number provided by ECHA pending publication of the official EC Inventory Number for the substance. Please see section 16 for the full text of any H statements referred to in this section

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.

Eve contact

Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately 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

See Section 11.1 Information on toxicological effects

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

SubstanceConditionIsocyanatesDuring combustion.Carbon monoxide.During combustion.Carbon dioxide.During combustion.Oxides of nitrogen.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. 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

Keep out of reach of children. Do not handle until all safety precautions have been read and understood. 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. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (eg. gloves, respirators...) as required.

7.2. Conditions for safe storage including any incompatibilities

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 oxidising agents. Store away from amines.

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
Ethylbenzene	100-41-4	UK HSC	TWA:441 mg/m3(100 ppm);STEL:552 mg/m3(125 ppm)	SKIN
Free isocyanates	101-68-8	UK HSC	TWA(as NCO):0.02 mg/m3;STEL(as NCO):0.07 mg/m3	Respiratory Sensitizer
Calcium Oxide	1305-78-8	UK HSC	TWA:2 mg/m3	
Xylene	1330-20-7	UK HSC	TWA:220 mg/m3(50 ppm);STEL:441 mg/m3(100 ppm)	SKIN
Titanium oxide	13463-67-7	UK HSC	TWA(Inhalable):10 mg/m3;TWA(respirable):4 mg/m³	
Poly(Vinyl Chloride)	9002-86-2	UK HSC	TWA(as inhalable dust):10 mg/m³;TWA(as respirable dust):4 mg/m³	

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
Xylene	1330-	UK EH40	Methyl	Creatinine in	EOS	650 mmol/mo	1
	20-7	BMGVs	hippuric acid	urine			

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

EOS: End of shift.

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:

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. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity. Gloves made from the following material(s) are recommended:

Material	Thickness (mm)	Breakthrough Time	
Neoprene.	0.5	> 8 hours	
Nitrile rubber.	0.35	> 8 hours	
Polymer laminate	>0.30	> 8 hours	

The glove data presented are based on the substance driving dermal toxicity and the conditions present at the time of testing. Breakthrough time may be altered when the glove is subjected to use conditions that place additional stress on the glove.

Applicable Norms/Standards Use gloves tested to EN 374

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Neoprene apron.

Apron - Nitrile

Apron - polymer laminate

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.

Appearance/Odour Solvent odour, white, paste.

Odour thresholdNo data available.pHNo data available.Boiling point/boiling rangeNo data available.Melting pointNo data available.Flammability (solid, gas)Not applicable.Explosive propertiesNot classifiedOxidising propertiesNot classifiedFlash point>=50 °C

Autoignition temperatureNo data available.Flammable Limits(LEL)No data available.Flammable Limits(UEL)No data available.Vapour pressureNo data available.

Relative density 1.17 [*Ref Std*:WATER=1]

Water solubility Nil

Solubility- non-waterNo data available.Partition coefficient: n-octanol/waterNo data available.Evaporation rateNo data available.Vapour densityNo data available.Decomposition temperatureNo data available.ViscosityNo data available.

9.2. Other information

EU Volatile Organic Compounds No data available. Percent volatileapproximately 5 %

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

None known.

10.5 Incompatible materials

Amines.

Alcohols.

Water

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

Substance

Condition

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 EU 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 Toxicological effects

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

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

Eve contact

Vapours released during curing may cause eye irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Ingestion

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea. May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:

Auditory effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears.

Prolonged or repeated exposure may cause target organ effects:

Auditory effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears. Neurological effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and changes in blood pressure and heart rate.

Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

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	Dermal		No data available; calculated ATE >5,000 mg/kg
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
Urethane polymer	Dermal		LD50 estimated to be > 5,000 mg/kg
Urethane polymer	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Poly(Vinyl Chloride)	Dermal	†	LD50 estimated to be > 5,000 mg/kg
Poly(Vinyl Chloride)	Ingestion	+	LD50 estimated to be > 5,000 mg/kg
Sulphonic acids, C10-21-alkane, phenyl esters	Dermal	Rat	LD50 > 1,055 mg/kg
Sulphonic acids, C10-21-alkane, phenyl esters	Ingestion	Rat	LD50 > 15,825 mg/kg
Xylene	Dermal	Rabbit	LD50 > 4,200 mg/kg
Xylene	Inhalation- Vapour (4 hours)	Rat	LC50 29 mg/l
Xylene	Ingestion	Rat	LD50 3,523 mg/kg
Titanium dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Titanium dioxide	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 6.82 mg/l
Titanium dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
Ethylbenzene	Dermal	Rabbit	LD50 15,433 mg/kg
Ethylbenzene	Inhalation- Vapour (4 hours)	Rat	LC50 17.4 mg/l
Ethylbenzene	Ingestion	Rat	LD50 4,769 mg/kg
Calcium Oxide	Ingestion	Rat	LD50 > 2,500 mg/kg
Distillates (petroleum), hydrotreated light	Dermal	Rabbit	LD50 > 3,160 mg/kg
Distillates (petroleum), hydrotreated light	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 3 mg/l
Distillates (petroleum), hydrotreated light	Ingestion	Rat	LD50 > 5,000 mg/kg
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	Dermal	Rabbit	LD50 4,000 mg/kg
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 5.3 mg/l
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	Ingestion	Rat	LD50 7,010 mg/kg
Toluene-4-sulphonamide	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
4,4'-methylenediphenyl diisocyanate	Dermal	Rabbit	LD50 > 5,000 mg/kg
4,4'-methylenediphenyl diisocyanate	Inhalation- Dust/Mist (4 hours)	Rat	LC50 0.368 mg/l
4,4'-methylenediphenyl diisocyanate	Ingestion	Rat	LD50 31,600 mg/kg
Toluene-4-sulphonamide	Ingestion	Rat	LD50 > 2,000 mg/kg
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Ingestion	Rat	LD50 3,125 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Poly(Vinyl Chloride)	Professio	No significant irritation
	nal	
	judgemen	
	t	
Sulphonic acids, C10-21-alkane, phenyl esters	Human	No significant irritation
	and	
	animal	
Xylene	Rabbit	Mild irritant
Titanium dioxide	Rabbit	No significant irritation
Ethylbenzene	Rabbit	Mild irritant
Calcium Oxide	Human	Corrosive
Distillates (petroleum), hydrotreated light	Rabbit	Mild irritant
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	Rabbit	Mild irritant
4,4'-methylenediphenyl diisocyanate	official	Irritant
	classificat	
	ion	
Toluene-4-sulphonamide	Rabbit	No significant irritation
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl	Rabbit	No significant irritation
1,2,2,6,6-pentamethyl-4-piperidyl sebacate		

Serious Eye Damage/Irritation

Name	Species	Value
Overall product	Rabbit	Mild irritant
Sulphonic acids, C10-21-alkane, phenyl esters	Rabbit	No significant irritation
Xylene	Rabbit	Mild irritant
Titanium dioxide	Rabbit	No significant irritation
Ethylbenzene	Rabbit	Moderate irritant
Calcium Oxide	Rabbit	Corrosive
Distillates (petroleum), hydrotreated light	Rabbit	Mild irritant
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	Rabbit	Corrosive
4,4'-methylenediphenyl diisocyanate	official	Severe irritant
	classificat	
	ion	
Toluene-4-sulphonamide	Rabbit	No significant irritation
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl	Rabbit	No significant irritation
1,2,2,6,6-pentamethyl-4-piperidyl sebacate		

Skin Sensitisation

Name	Species	Value
Titanium dioxide	Human	Not classified
	and	
	animal	
Ethylbenzene	Human	Not classified
Distillates (petroleum), hydrotreated light	Guinea	Not classified
	pig	
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	Guinea	Not classified
	pig	
4,4'-methylenediphenyl diisocyanate	official	Sensitising
	classificat	
	ion	
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl	Guinea	Sensitising
1,2,2,6,6-pentamethyl-4-piperidyl sebacate	pig	

Respiratory Sensitisation

Name	Species	Value
4,4'-methylenediphenyl diisocyanate	Human	Sensitising

Germ Cell Mutagenicity

Name	Route	Value
Poly(Vinyl Chloride)	In Vitro	Not mutagenic
Sulphonic acids, C10-21-alkane, phenyl esters	In Vitro	Not mutagenic
Xylene	In Vitro	Not mutagenic
Xylene	In vivo	Not mutagenic
Titanium dioxide	In Vitro	Not mutagenic
Titanium dioxide	In vivo	Not mutagenic
Ethylbenzene	In vivo	Not mutagenic
Ethylbenzene	In Vitro	Some positive data exist, but the data are not
		sufficient for classification
Calcium Oxide	In Vitro	Not mutagenic
Distillates (petroleum), hydrotreated light	In Vitro	Not mutagenic
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	In vivo	Not mutagenic
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	In Vitro	Some positive data exist, but the data are not
		sufficient for classification
4,4'-methylenediphenyl diisocyanate	In Vitro	Some positive data exist, but the data are not
		sufficient for classification
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl	In Vitro	Not mutagenic
1,2,2,6,6-pentamethyl-4-piperidyl sebacate		

Carcinogenicity

Name	Route	Species	Value
Poly(Vinyl Chloride)	Not	Rat	Some positive data exist, but the data are not
	specified.		sufficient for classification
Xylene	Dermal	Rat	Not carcinogenic
Xylene	Ingestion	Multiple	Not carcinogenic
		animal	
		species	
Xylene	Inhalation	Human	Some positive data exist, but the data are not
			sufficient for classification
Titanium dioxide	Ingestion	Multiple	Not carcinogenic
		animal	
		species	
Titanium dioxide	Inhalation	Rat	Carcinogenic.
Ethylbenzene	Inhalation	Multiple	Carcinogenic.
		animal	
		species	
Distillates (petroleum), hydrotreated light	Dermal	Mouse	Some positive data exist, but the data are not
			sufficient for classification
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	Dermal	Mouse	Not carcinogenic
4,4'-methylenediphenyl diisocyanate	Inhalation	Rat	Some positive data exist, but the data are not
			sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Poly(Vinyl Chloride)	Not specified.	Not classified for development	Mouse	NOAEL Not available	during gestation
Sulphonic acids, C10-21-alkane, phenyl esters	Ingestion	Not classified for female reproduction	Rat	NOAEL 530 mg/kg/day	1 generation
Sulphonic acids, C10-21-alkane, phenyl esters	Ingestion	Not classified for development	Rat	NOAEL 530 mg/kg/day	1 generation
Xylene	Inhalation	Not classified for female reproduction	Human	NOAEL Not available	occupational exposure
Xylene	Ingestion	Not classified for development	Mouse	NOAEL Not available	during organogenesis
Xylene	Inhalation	Not classified for development	Multiple animal species	NOAEL Not available	during gestation
Ethylbenzene	Inhalation	Not classified for development	Rat	NOAEL 4.3 mg/l	premating & during gestation

[3-(2,3-Epoxypropoxy)propyl]	Ingestion	Not classified for female reproduction	Rat	NOAEL	1 generation
trimethoxysilane				1,000	
				mg/kg/day	
[3-(2,3-Epoxypropoxy)propyl]	Ingestion	Not classified for male reproduction	Rat	NOAEL	1 generation
trimethoxysilane				1,000	
				mg/kg/day	
[3-(2,3-Epoxypropoxy)propyl]	Ingestion	Not classified for development	Rat	NOAEL	during
trimethoxysilane		_		3,000	organogenesis
				mg/kg/day	
4,4'-methylenediphenyl diisocyanate	Inhalation	Not classified for development	Rat	NOAEL	during
				0.004 mg/l	organogenesis
Toluene-4-sulphonamide	Ingestion	Not classified for reproduction and/or	Rat	NOAEL 300	premating &
		development		mg/kg/day	during
					gestation

Lactation

Name	Route	Species	Value
Xylene	Ingestion	Mouse	Not classified for effects on or via lactation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Xylene	Inhalation	auditory system	Causes damage to organs	Rat	LOAEL 6.3 mg/l	8 hours
Xylene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Xylene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Xylene	Inhalation	eyes	Not classified	Rat	NOAEL 3.5 mg/l	not available
Xylene	Inhalation	liver	Not classified	Multiple animal species	NOAEL Not available	
Xylene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Multiple animal species	NOAEL Not available	
Xylene	Ingestion	eyes	Not classified	Rat	NOAEL 250 mg/kg	not applicable
Ethylbenzene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Ethylbenzene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human and animal	NOAEL Not available	
Ethylbenzene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professio nal judgeme nt	NOAEL Not available	
Calcium Oxide	Inhalation	respiratory irritation	May cause respiratory irritation	Not available	NOAEL Not available	occupational exposure
Distillates (petroleum), hydrotreated light	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Distillates (petroleum), hydrotreated light	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Distillates (petroleum), hydrotreated light	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professio nal judgeme nt	NOAEL Not available	
4,4'-methylenediphenyl diisocyanate	Inhalation	respiratory irritation	May cause respiratory irritation	official classifica tion	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Poly(Vinyl Chloride)	Inhalation	respiratory system	Not classified	Multiple animal species	NOAEL 0.013 mg/l	22 months
Sulphonic acids, C10-21- alkane, phenyl esters	Ingestion	liver kidney and/or bladder	Not classified	Rat	NOAEL 1,490 mg/kg/day	90 days
Xylene	Inhalation	nervous system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.4 mg/l	4 weeks
Xylene	Inhalation	auditory system	May cause damage to organs though prolonged or repeated exposure	Rat	LOAEL 7.8 mg/l	5 days
Xylene	Inhalation	liver	Not classified	Multiple animal species	NOAEL Not available	
Xylene	Inhalation	heart endocrine system gastrointestinal tract hematopoietic system muscles kidney and/or bladder respiratory system	Not classified	Multiple animal species	NOAEL 3.5 mg/l	13 weeks
Xylene	Ingestion	auditory system	Not classified	Rat	NOAEL 900 mg/kg/day	2 weeks
Xylene	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 1,500 mg/kg/day	90 days
Xylene	Ingestion	liver	Not classified	Multiple animal species	NOAEL Not available	
Xylene	Ingestion	heart skin endocrine system bone, teeth, nails, and/or hair hematopoietic system immune system nervous system respiratory system	Not classified	Mouse	NOAEL 1,000 mg/kg/day	103 weeks
Titanium dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.01 mg/l	2 years
Titanium dioxide	Inhalation	pulmonary fibrosis	Not classified	Human	NOAEL Not available	occupational exposure
Ethylbenzene	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1.1 mg/l	2 years
Ethylbenzene	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 1.1 mg/l	103 weeks
Ethylbenzene	Inhalation	hematopoietic system	Not classified	Rat	NOAEL 3.4 mg/l	28 days
Ethylbenzene	Inhalation	auditory system	Not classified	Rat	NOAEL 2.4 mg/l	5 days
Ethylbenzene	Inhalation	endocrine system	Not classified	Mouse	NOAEL 3.3 mg/l	103 weeks
Ethylbenzene	Inhalation	gastrointestinal tract	Not classified	Rat	NOAEL 3.3 mg/l	2 years
Ethylbenzene	Inhalation	bone, teeth, nails, and/or hair muscles	Not classified	Multiple animal species	NOAEL 4.2 mg/l	90 days
Ethylbenzene	Inhalation	heart immune system respiratory system	Not classified	Multiple animal species	NOAEL 3.3 mg/l	2 years

Ethylbenzene	Ingestion	liver kidney and/or bladder	Not classified	Rat	NOAEL 680 mg/kg/day	6 months
[3-(2,3- Epoxypropoxy)propyl] trimethoxysilane	Ingestion	heart endocrine system bone, teeth, nails, and/or hair hematopoietic system liver immune system nervous system kidney and/or bladder respiratory system	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days
4,4'-methylenediphenyl diisocyanate	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.004 mg/l	13 weeks

Aspiration Hazard

Name	Value
Xylene	Aspiration hazard
Ethylbenzene	Aspiration hazard
Distillates (petroleum), hydrotreated light	Aspiration hazard

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.

SECTION 12: Ecological information

The information below may not agree with the EU 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
Urethane polymer	68130-40-5		Data not available or insufficient for classification			
Poly(Vinyl Chloride)	9002-86-2		Data not available or insufficient for classification			
Sulphonic acids, C10- 21-alkane, phenyl esters	91082-17-6	Green algae	Experimental	72 hours	EC50	>100 mg/l
Sulphonic acids, C10- 21-alkane, phenyl esters	91082-17-6	Water flea	Experimental	48 hours	EC50	>100 mg/l
Sulphonic acids, C10- 21-alkane, phenyl esters	91082-17-6	Zebra Fish	Experimental	96 hours	LC50	>100 mg/l
Sulphonic acids, C10- 21-alkane, phenyl esters	91082-17-6	Green algae	Experimental	72 hours	NOEC	>100 mg/l
Xylene	1330-20-7		Data not available or insufficient for classification			
Calcium Oxide	1305-78-8	Common Carp	Experimental	96 hours	LC50	1,070 mg/l
Ethylbenzene	100-41-4	Atlantic Silverside	Experimental	96 hours	LC50	5.1 mg/l
Ethylbenzene	100-41-4	Green Algae	Experimental	96 hours	EC50	3.6 mg/l

Ethylbenzene	100-41-4	Mysid Shrimp	Experimental	96 hours	LC50	2.6 mg/l
Ethylbenzene	100-41-4	Rainbow trout	Experimental	96 hours	LC50	4.2 mg/l
Ethylbenzene	100-41-4	Water flea	Experimental	48 hours	EC50	1.8 mg/l
Ethylbenzene	100-41-4	Water flea	Experimental	7 days	NOEC	0.96 mg/l
Distillates (petroleum), hydrotreated light	64742-47-8	Green Algae	Estimated	72 hours	EC50	1 mg/l
Distillates (petroleum), hydrotreated light	64742-47-8	Rainbow trout	Estimated	96 hours	Lethal Level 50%	2 mg/l
Distillates (petroleum), hydrotreated light	64742-47-8	Water flea	Estimated	48 hours	Effect Level 50%	1.4 mg/l
Distillates (petroleum), hydrotreated light	64742-47-8	Green Algae	Estimated	72 hours	No obs Effect Level	1 mg/l
Distillates (petroleum), hydrotreated light	64742-47-8	Water flea	Estimated	21 days	No obs Effect Level	0.48 mg/l
Titanium dioxide	13463-67-7	Diatom	Experimental	72 hours	EC50	>10,000 mg/l
Titanium dioxide	13463-67-7	Fathead minnow	Experimental	96 hours	LC50	>100 mg/l
Titanium dioxide	13463-67-7	Water flea	Experimental	48 hours	EC50	>100 mg/l
Titanium dioxide	13463-67-7	Diatom	Experimental	72 hours	NOEC	5,600 mg/l
[3-(2,3- Epoxypropoxy)propyl] trimethoxysilane	2530-83-8	Common Carp	Experimental	96 hours	LC50	55 mg/l
[3-(2,3- Epoxypropoxy)propyl] trimethoxysilane	2530-83-8	Crustacea other	Experimental	48 hours	LC50	324 mg/l
[3-(2,3- Epoxypropoxy)propyl] trimethoxysilane	2530-83-8	Green algae	Experimental	96 hours	EC50	350 mg/l
[3-(2,3- Epoxypropoxy)propyl] trimethoxysilane	2530-83-8	Green Algae	Experimental	96 hours	NOEC	130 mg/l
[3-(2,3- Epoxypropoxy)propyl] trimethoxysilane	2530-83-8	Water flea	Experimental	21 days	NOEC	>=100 mg/l
4,4'-methylenediphenyl diisocyanate	101-68-8	Green algae	Estimated	72 hours	EC50	>1,640 mg/l
4,4'-methylenediphenyl diisocyanate	101-68-8	Water flea	Estimated	24 hours	EC50	>1,000 mg/l
4,4'-methylenediphenyl diisocyanate	101-68-8	Zebra Fish	Estimated	96 hours	LC50	>1,000 mg/l
4,4'-methylenediphenyl diisocyanate		Green algae	Estimated	72 hours	NOEC	1,640 mg/l
4,4'-methylenediphenyl diisocyanate		Water flea	Estimated	21 days	NOEC	10 mg/l
Toluene-4- sulphonamide	70-55-3	Green Algae	Estimated	72 hours	EC50	170 mg/l
Toluene-4- sulphonamide	70-55-3	Water flea	Estimated	48 hours	EC50	210 mg/l
Toluene-4- sulphonamide	70-55-3	Green Algae	Estimated	72 hours	NOEC	7.7 mg/l
Toluene-4- sulphonamide	70-55-3	Water flea	Estimated	21 days	NOEC	49 mg/l
Reaction mass of Bis(1,2,2,6,6- pentamethyl-4- piperidyl) sebacate and Methyl 1,2,2,6,6- pentamethyl-4- piperidyl sebacate	915-687-0	Green algae	Experimental	72 hours	EC50	1.68 mg/l

Reaction mass of	915-687-0	Zebra Fish	Experimental	96 hours	LC50	0.9 mg/l
Bis(1,2,2,6,6-						
pentamethyl-4-						
piperidyl) sebacate and						
Methyl 1,2,2,6,6-						
pentamethyl-4-						
piperidyl sebacate						
Reaction mass of	915-687-0	Green algae	Experimental	72 hours	NOEC	0.22 mg/l
Bis(1,2,2,6,6-						
pentamethyl-4-						
piperidyl) sebacate and						
Methyl 1,2,2,6,6-						
pentamethyl-4-						
piperidyl sebacate						
Reaction mass of	915-687-0	Water flea	Experimental	21 days	NOEC	1 mg/l
Bis(1,2,2,6,6-						
pentamethyl-4-						
piperidyl) sebacate and						
Methyl 1,2,2,6,6-						
pentamethyl-4-						
piperidyl sebacate						

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Urethane polymer	68130-40-5	Data not availbl- insufficient			N/A	
Poly(Vinyl Chloride)	9002-86-2	Data not availbl- insufficient			N/A	
Sulphonic acids, C10-21- alkane, phenyl esters	91082-17-6	Experimental Biodegradation	28 days	BOD	49 % weight	
Xylene	1330-20-7	Data not availbl- insufficient			N/A	
Calcium Oxide	1305-78-8	Data not availbl- insufficient			N/A	
Ethylbenzene	100-41-4	Experimental Photolysis		Photolytic half-life (in air)	4.26 days (t 1/2)	Other methods
Ethylbenzene	100-41-4	Experimental Biodegradation	28 days	CO2 evolution	70-80 % weight	Other methods
Distillates (petroleum), hydrotreated light	64742-47-8	Data not availbl- insufficient			N/A	
Titanium dioxide	13463-67-7	Data not availbl- insufficient			N/A	
[3-(2,3- Epoxypropoxy)propyl] trimethoxysilane	2530-83-8	Experimental Hydrolysis		Hydrolytic half-life	6.5 hours (t 1/2)	Other methods
[3-(2,3- Epoxypropoxy)propyl] trimethoxysilane	2530-83-8	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	37 % weight	Other methods
4,4'-methylenediphenyl diisocyanate	101-68-8	Estimated Hydrolysis		Hydrolytic half-life	20 hours (t 1/2)	Other methods
Toluene-4-sulphonamide	70-55-3	Experimental Biodegradation	28 days	BOD	86 % weight	OECD 301D - Closed bottle test
Reaction mass of Bis(1,2,2,6,6-pentamethyl- 4-piperidyl) sebacate and Methyl 1,2,2,6,6- pentamethyl-4-piperidyl sebacate	915-687-0	Estimated Biodegradation	28 days	Dissolv. Organic Carbon Deplet	38 % weight	OECD 301E - Modified OECD Scre

12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
Urethane polymer	68130-40-5	Data not available	N/A	N/A	N/A	N/A
		or insufficient for				
		classification				

Poly(Vinyl Chloride)	9002-86-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Sulphonic acids, C10-21-alkane, phenyl esters	91082-17-6	Experimental BCF- Carp	36 days	Bioaccumulation factor	56-212	
Xylene	1330-20-7	Experimental BCF - Rainbow Tr	56 days	Bioaccumulation factor	14	Other methods
Calcium Oxide	1305-78-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Ethylbenzene	100-41-4	Experimental BCF - Other	42 days	Bioaccumulation factor	1	Other methods
Distillates (petroleum), hydrotreated light	64742-47-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Titanium dioxide	13463-67-7	Experimental BCF- Carp	42 days	Bioaccumulation factor	9.6	Other methods
[3-(2,3- Epoxypropoxy)propyl] trimethoxysilane	2530-83-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
4,4'-methylenediphenyl diisocyanate	101-68-8	Experimental BCF- Carp	28 days	Bioaccumulation factor	200	OECD 305E - Bioaccumulation flow- through fish test
Toluene-4-sulphonamide	70-55-3	Experimental Bioconcentration		Log Kow	0.6	Other methods
Reaction mass of Bis(1,2,2,6,6-pentamethyl- 4-piperidyl) sebacate and Methyl 1,2,2,6,6- pentamethyl-4-piperidyl sebacate	915-687-0	Estimated BCF- Carp	56 days	Bioaccumulation factor	31.4	

12.4. Mobility in soil

Please contact manufacturer for more details

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

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

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

Incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. As a disposal alternative, utilize an acceptable permitted waste disposal facility. 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

SECTION 14: Transportation information

FS-9100-2333-2

Not hazardous for transportation

SECTION 15: Regulatory information

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

Carcinogenicity

Ingredient	CAS Nbr	Classification	Regulation
Ethylbenzene	100-41-4	Grp. 2B: Possible human	International Agency
		carc.	for Research on Cancer
4,4'-methylenediphenyl diisocyanate	101-68-8	Carc. 2	Regulation (EC) No.
			1272/2008, Table 3.1
4,4'-methylenediphenyl diisocyanate	101-68-8	Gr. 3: Not classifiable	International Agency
			for Research on Cancer
Poly(Vinyl Chloride)	9002-86-2	Gr. 3: Not classifiable	International Agency
			for Research on Cancer
Titanium dioxide	13463-67-7	Grp. 2B: Possible human	International Agency
		carc.	for Research on Cancer
Xylene	1330-20-7	Gr. 3: Not classifiable	International Agency
			for Research on Cancer

Global inventory status

Contact 3M for more information.

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.

SECTION 16: Other information

List of relevant H statements

EUH071	Corrosive to the respiratory tract.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H373	May cause 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.
H412	Harmful to aquatic life with long lasting effects.

Revision information:

Section 1: Product use information information was modified.

Section 01: SAP Material Numbers information was added.

CLP: Ingredient table information was modified.

Label: CLP Precautionary - Prevention information was modified.

Label: CLP Precautionary - Response information was modified.

Section 2: Other hazards phrase information was modified.

Section 3: Composition/Information of ingredients table information was added.

Section 3: Composition/Information of ingredients table information was deleted.

Section 5: Fire - Advice for fire fighters information information was modified.

Section 5: Hazardous combustion products table information was added.

Section 8: Eye protection information information was deleted.

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

Section 8: Occupational exposure limit table information was modified.

Section 8: Personal Protection - Eye information information was added.

Section 10: Hazardous decomposition or by-products table information was modified.

Section 10: Hazardous decomposition products during combustion text information was added.

Section 11: Acute Toxicity table information was modified.

Section 11: Carcinogenicity Table information was modified.

Section 11: Germ Cell Mutagenicity Table information was modified.

Lactation Table information was modified.

Section 11: Reproductive Toxicity Table information was modified.

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: Component ecotoxicity information information was modified.

Section 12: No PBT/vPvB information available warning information was modified.

Section 12: Persistence and Degradability information information was modified.

Section 12:Bioccumulative potential information information was modified.

Section 13: 13.1. Waste disposal note information was modified.

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

Section 15: Chemical Safety Assessment information was modified.

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

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

3M United Kingdom MSDSs are available at www.3M.com/uk