



Safety Data Sheet

Copyright, 2019, 3M Company All rights reserved. Copying and/or downloading of this information for the purpose of properly utilising 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

Document group:	06-2071-6	Version number:	11.01
Revision date:	20/02/2019	Supersedes date:	07/08/2018
Transportation version number: 2.01 (17/10/2011)			

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 08689, 08787, 08788 Polyurethane General Purpose Seam Sealer, White

Product Identification Numbers

FI-3000-0108-3	FI-3000-0114-1	FI-3000-0115-8
7000077240	7000077245	7000077246

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

Identified uses

Automotive.

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	< 0.5
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

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

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.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.

Disposal:

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

2% of the mixture consists of components of unknown acute dermal toxicity.
32% of the mixture consists of components of unknown acute inhalation toxicity.

Notes on labelling

Eye irritation classification does not apply based on test data.

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 - 60	Substance not classified as hazardous
Sulphonic acids, C10-21-alkane, phenyl esters	91082-17-6	293-728-5		20 - 40	Substance not classified as hazardous
Poly(Vinyl Chloride)	9002-86-2	618-338-8		20 - 40	Substance with a Community level exposure limit in the workplace
Xylene	1330-20-7	215-535-7		3 - 7	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
Titanium dioxide	13463-67-7	236-675-5		1 - 5	Substance with a Community level exposure limit in the workplace
Ethylbenzene	100-41-4	202-849-4		< 2	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		< 2	EUH071; Skin Corr. 1C, H314
Distillates (petroleum), hydrotreated light	64742-47-8	265-149-8		< 2	Asp. Tox. 1, H304 Aquatic Chronic 2, H411 Flam. Liq. 3, H226; Skin Irrit. 2, H315; STOT SE 3, H336
4,4'-methylenediphenyl diisocyanate	101-68-8	202-966-0		< 0.5	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
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

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.

Eye 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 carbon dioxide or dry chemical extinguisher to extinguish.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Carbon monoxide.	During combustion.
Carbon dioxide.	During combustion.
Irritant vapours or gases.	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.

6.3. Methods and material for containment and cleaning up

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. 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 use in a confined area with minimal air exchange. 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.) Keep away from reactive metals (eg. Aluminium, zinc etc.) to avoid the formation of hydrogen gas that could create an explosion hazard. 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 heat. Store away from acids. Store away from strong bases. 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/m ³ (100 ppm);STEL:552 mg/m ³ (125 ppm)	SKIN
Free isocyanates	101-68-8	UK HSC	TWA(as NCO):0.02 mg/m ³ ;STEL(as NCO):0.07 mg/m ³	Respiratory Sensitizer
Calcium Oxide	1305-78-8	UK HSC	TWA:2 mg/m ³	
Xylene	1330-20-7	UK HSC	TWA:220 mg/m ³ (50 ppm);STEL:441 mg/m ³ (100 ppm)	SKIN
Titanium dioxide	13463-67-7	UK HSC	TWA(Inhalable):10 mg/m ³ ;TWA(respirable):4 mg/m ³	
Poly(Vinyl Chloride)	9002-86-2	UK HSC	TWA(as inhalable dust):10 mg/m ³ ;TWA(as respirable dust):4 mg/m ³	

UK HSC : UK Health and Safety Commission

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CELL: Ceiling

Biological limit values

Ingredient	CAS Nbr	Agency	Determinant	Biological Specimen	Sampling Time	Value	Additional comments
------------	---------	--------	-------------	---------------------	---------------	-------	---------------------

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

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:
Safety glasses with side shields.

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.	0.5	> 8 hours
Nitrile rubber.	0.35	> 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: Apron – Butyl rubber

Apron – Nitrile

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	Solid.
Specific Physical Form:	Paste
Appearance/Odour	Light solvent odour; White paste
Odour threshold	No data available.
pH	Not applicable.
Boiling point/boiling range	137 °C
Melting point	No data available.
Flammability (solid, gas)	Not classified
Explosive properties	Not classified
Oxidising properties	Not classified
Flash point	Not applicable.
Autoignition temperature	>= 200 °C
Flammable Limits(LEL)	No data available.
Flammable Limits(UEL)	No data available.
Vapour pressure	No data available.
Relative density	1.17 [Ref Std:WATER=1]
Water solubility	Nil
Solubility- non-water	No data available.
Partition coefficient: n-octanol/water	No data available.
Evaporation rate	No data available.
Vapour density	4 [Ref Std:AIR=1]
Decomposition temperature	No data available.
Viscosity	No data available.
Density	1.17 g/cm ³ [@ 20 °C]

9.2. Other information

EU Volatile Organic Compounds	No data available.
Percent volatile	8.38 %

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is considered to be non reactive under normal use conditions

10.2 Chemical stability

Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

Heat.

High shear and high temperature conditions

Sparks and/or flames.

10.5 Incompatible materials

Amines.

Alcohols.

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

buildup.
Accelerators
Combustibles.
Finely divided active metals
Strong acids.
Strong bases.
Strong oxidising agents.
Water

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 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.

Eye contact

Contact with the eyes during product use is not expected to result in significant irritation. 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:

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:

3M 08689, 08787, 08788 Polyurethane General Purpose Seam Sealer, White

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
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
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)	Professional judgement	No significant irritation
Sulphonic acids, C10-21-alkane, phenyl esters	Human	No significant irritation

3M 08689, 08787, 08788 Polyurethane General Purpose Seam Sealer, White

	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
4,4'-methylenediphenyl diisocyanate	official classification	Irritant
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Rabbit	No significant irritation

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
4,4'-methylenediphenyl diisocyanate	official classification	Severe irritant
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Rabbit	No significant irritation

Skin Sensitisation

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

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

3M 08689, 08787, 08788 Polyurethane General Purpose Seam Sealer, White

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 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Poly(Vinyl Chloride)	Not specified.	Rat	Some positive data exist, but the data are not sufficient for classification
Xylene	Dermal	Rat	Not carcinogenic
Xylene	Ingestion	Multiple animal species	Not carcinogenic
Xylene	Inhalation	Human	Some positive data exist, but the data are not sufficient for classification
Titanium dioxide	Ingestion	Multiple animal species	Not carcinogenic
Titanium dioxide	Inhalation	Rat	Carcinogenic.
Ethylbenzene	Inhalation	Multiple animal species	Carcinogenic.
Distillates (petroleum), hydrotreated light	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
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
4,4'-methylenediphenyl diisocyanate	Inhalation	Not classified for development	Rat	NOAEL 0.004 mg/l	during organogenesis

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	May cause drowsiness or	Human	NOAEL Not	

3M 08689, 08787, 08788 Polyurethane General Purpose Seam Sealer, White

		system depression	dizziness		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	Professional judgement	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	Professional judgement	NOAEL Not available	
4,4'-methylenediphenyl diisocyanate	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
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 through 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	Not classified	Rat	NOAEL	90 days

3M 08689, 08787, 08788 Polyurethane General Purpose Seam Sealer, White

		bladder			1,500 mg/kg/day	
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
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.

3M 08689, 08787, 08788 Polyurethane General Purpose Seam Sealer, White

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	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	EC50	>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	Water flea	Estimated	48 hours	EC50	3.82 mg/l
Xylene	1330-20-7	Rainbow trout	Estimated	96 hours	LC50	2.6 mg/l
Xylene	1330-20-7	Green Algae	Estimated	73 hours	EC50	4.36 mg/l
Xylene	1330-20-7	Water flea	Estimated	7 days	NOEC	0.96 mg/l
Xylene	1330-20-7	Rainbow trout	Experimental	56 days	NOEC	>1.3 mg/l
Xylene	1330-20-7	Green Algae	Estimated	73 hours	Effect Conc. 10% - Growth Rate	1.9 mg/l
Titanium dioxide	13463-67-7	Fathead minnow	Experimental	96 hours	LC50	>100 mg/l
Titanium dioxide	13463-67-7	Diatom	Experimental	72 hours	EC50	>10,000 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
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	Water flea	Experimental	48 hours	EC50	1.8 mg/l
Ethylbenzene	100-41-4	Rainbow trout	Experimental	96 hours	LC50	4.2 mg/l
Ethylbenzene	100-41-4	Water flea	Experimental	7 days	NOEC	0.96 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	Rainbow trout	Estimated	96 hours	Lethal Level 50%	2 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	Water flea	Estimated	21 days	No obs Effect Level	0.48 mg/l
Distillates (petroleum), hydrotreated light	64742-47-8	Green Algae	Estimated	72 hours	No obs Effect Level	1 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

3M 08689, 08787, 08788 Polyurethane General Purpose Seam Sealer, White

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	21 days	NOEC	10 mg/l
4,4'-methylenediphenyl diisocyanate	101-68-8	Green algae	Estimated	72 hours	NOEC	1,640 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	Zebra Fish	Experimental	96 hours	LC50	0.9 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 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	NOEC	0.22 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	Water flea	Experimental	21 days	NOEC	1 mg/l

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	Experimental Biodegradation	28 days	BOD	90-98 % BOD/ThBOD	OECD 301F - Manometric respirometry
Titanium dioxide	13463-67-7	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	
4,4'-methylenediphenyl diisocyanate	101-68-8	Estimated Hydrolysis		Hydrolytic half-life	20 hours (t 1/2)	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 Biodegradation	28 days	Dissolv. Organic Carbon Deplet	38 % weight	OECD 301E - Modified OECD Scre

12.3 : Bioaccumulative potential

3M 08689, 08787, 08788 Polyurethane General Purpose Seam Sealer, White

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
Urethane polymer	68130-40-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
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	25.9	Other methods
Titanium dioxide	13463-67-7	Experimental BCF-Carp	42 days	Bioaccumulation factor	9.6	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
4,4'-methylenediphenyl diisocyanate	101-68-8	Experimental BCF-Carp	28 days	Bioaccumulation factor	200	OECD 305E - Bioaccumulation flow-through fish 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 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.

Dispose of waste product in a permitted industrial waste 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

20 01 27* Paint, inks, adhesives and resins containing dangerous substances

SECTION 14: Transportation information

FI-3000-0108-3, FI-3000-0114-1, FI-3000-0115-8

Not hazardous for transportation

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>
Ethylbenzene	100-41-4	Grp. 2B: Possible human carc.	International Agency for Research on Cancer Regulation (EC) No. 1272/2008, Table 3.1
4,4'-methylenediphenyl diisocyanate	101-68-8	Carc. 2	
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 carc.	International Agency 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.
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 identification numbers information was modified.
Section 01: SAP Material Numbers information was modified.
Section 3: Composition/ Information of ingredients table information was modified.
Section 7: Precautions safe handling information information was modified.
Section 11: Reproductive and/or Developmental Effects text information was deleted.
Section 12: Component ecotoxicity information information was modified.
Section 12: Persistence and Degradability information information was modified.
Section 12:Biocumulative potential information information was modified.
Section 13: 13.1. Waste disposal note 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