Safety Data Sheet

Document group:	06-2071-6	**Version number:**	7.00
Revision date:	30/11/2012	**Supersedes date:**	18/10/2011

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-3000-0115-8 FI-3000-0253-7

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 substance or mixture

Address: 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.

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:

Serious Eye Damage/Irritation: Category 2A.
Skin Corrosion/Irritation: Category 2.
Respiratory Sensitiser: Category 1.

Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive

Indication of danger

Sensitizing; R42

For full text of R phrases, see Section 16.

2.2. Label elements
CLP REGULATION (EC) No 1272/2008

SIGNAL WORD
DANGER!

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

Pictograms

Ingredient	CAS Nbr	% by Wt
4,4'-methylenediphenyl diisocyanate	101-68-8	0.1 - 1

HAZARD STATEMENTS:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

PRECAUTIONARY STATEMENTS

Prevention:

P261	All or part of the classification is based on toxicity test data.
P285	In case of inadequate ventilation wear respiratory protection.

Response:

P304 + P341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

SUPPLEMENTAL INFORMATION

Supplemental Hazard Statements:

EUH204	Contains isocyanates. May produce an allergic reaction.

Contains 33.18% of components with unknown hazards to the aquatic environment.

Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive

Symbol(s)

Harmful

Contains:

4,4'-methylenediphenyl diisocyanate

Risk phrases

R42 May cause sensitisation by inhalation.

Safety phrases

S23A Do not breathe vapour.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Special provisions concerning the labelling of certain substances

Contains isocyanates. See information supplied by manufacturer.

2.3. Other hazards

Persons previously sensitized to isocyanates may develop a cross-sensitization reaction to other isocyanates.

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	EU Inventory	% by Wt	Classification
Urethane polymer	68130-40-5		30 - 60	
Poly(Vinyl Chloride)	9002-86-2		20 - 40	
Sulphonic acids, C10-21-alkane, phenyl esters	91082-17-6	EINECS 293-728-5	20 - 40	
Xylene	1330-20-7	EINECS 215-535-7	3 - 7	Xn:R20-21; Xi:R38; R10 - Nota C (EU) Flam. Liq. 3, H226; Acute Tox. 4, H332; Acute Tox. 4, H312; Skin Irrit. 2, H315 - Nota C (CLP)
Titanium dioxide	13463-67-7	EINECS 236-675-5	1 - 5	
Ethylbenzene	100-41-4	EINECS 202-849-4	1 - 5	F:R11; Xn:R20 (EU) Flam. Liq. 2, H225; Acute Tox. 4, H332 (CLP)
Calcium Oxide	1305-78-8	EINECS 215-138-9	1 - 5	C:R34; Xn:R22; Xi:R37 (Self Classified) EUH071; Acute Tox. 4, H302; Skin Corr. 1C, H314 (Self Classified)
Distillates (petroleum), hydrotreated light	64742-47-8	EINECS 265-149-8	1 - 5	Xn:R65 - Nota 4 (EU) R10; R66; R67 (Self Classified) Asp. Tox. 1, H304 (CLP) Flam. Liq. 3, H226; STOT SE 3, H336; EUH066 (Self Classified)
Toluene-4-sulphonamide	70-55-3	EINECS 200-741-1	0.1 - 1	Repr.Cat.3:R63 (Self Classified) Repr. 2, H361d (Self Classified)
4,4'-methylenediphenyl diisocyanate	101-68-8	EINECS 202-966-0	0.1 - 1	Carc.Cat.3:R40; Xn:R20-48/20; Xi:R36-37-38; R42-43 - Nota

				2,C (EU) 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 (CLP)

Please see section 16 for the full text of any R phrases and H statements referred to in this section
Please refer to section 15 for the any applicable Notas that have been applied to the above components

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

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.

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

Inhalation
Remove person to fresh air. If you feel unwell, 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.

5.2. Special hazards arising from the substance or mixture
None inherent in this product.

Hazardous Decomposition or By-Products

Substance	Condition
Carbon monoxide.	During combustion.
Carbon dioxide.	During combustion.
Irritant vapours or gases.	During combustion.

5.3. Advice for fire-fighters
No unusual fire or explosion hazards are anticipated.

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. Warning: A motor could be an ignition source and could cause flammable gases or vapours in the spill area to burn or explode. 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 closed container approved for transportation by appropriate authorities. 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. Seal the container. 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 or professional use only. 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. Wash contaminated clothing before reuse. Use personal protective equipment (eg. gloves, respirators…) as required. Do not use in a confined area or areas with little or no air movement. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Keep away from reactive metals (eg. Aluminum, zinc etc.) to avoid the formation of hydrogen gas that could create an explosion hazard.

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.

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

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Ethylbenzene	100-41-4	Health and Safety Comm. (UK)	TWA:441 mg/m3(100 ppm);STEL:552 mg/m3(125 ppm)	Skin Notation
Free isocyanates	101-68-8	Manufacturer determined	TWA:0.005 ppm;STEL:0.02 ppm	
Free isocyanates	101-68-8	Health and Safety Comm. (UK)	TWA(as NCO):0.02 mg/m3;STEL(as NCO):0.07 mg/m3	Respiratory Sensitizer
Calcium Oxide	1305-78-8	Health and	TWA:2 mg/m3	

		Safety Comm. (UK)		
Xylene	1330-20-7	Health and Safety Comm. (UK)	TWA:220 mg/m3(50 ppm);STEL:441 mg/m3(100 ppm)	Skin Notation
Titanium dioxide	13463-67-7	Health and Safety Comm. (UK)	TWA(Inhalable):10 mg/m3;TWA(respirable):4 mg/m³	
Poly(Vinyl Chloride)	9002-86-2	Health and Safety Comm. (UK)	TWA(as inhalable dust):10 mg/m³;TWA(as respirable dust):4 mg/m³	

Health and Safety Comm. (UK) : UK Health and Safety Commission
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
ppm: parts per million
mg/m³: milligrams per cubic metre
CEIL: Ceiling

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

Wear eye/face protection.
The following eye protection(s) are recommended: Indirect vented goggles.

Skin/hand protection

Wear protective gloves.
Gloves made from the following material(s) are recommended: Nitrile rubber.

Respiratory protection

In case of inadequate ventilation wear 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.

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
pH	*Not applicable.*
Boiling point/boiling range	137 ºC
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 ºC
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
Vapour density	4 [*Ref Std:*AIR=1]
Density	1.17 g/cm3 [@ 20 ºC]

9.2. Other information

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

Substance	Condition
None known.	

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labelling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

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:

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

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

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 target organ effects after inhalation.

Ingestion
Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea. May cause target organ effects after ingestion.

Target Organ Effects:
Auditory effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears.
Prolonged or repeated exposure may cause:
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.

Reproductive/Developmental Toxicity:
Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

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

Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No test data available; calculated ATE >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 > 4,300 mg/kg
Xylene	Inhalation-Vapor (4 hours)	Rat	LC50 28 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 > 6.8 mg/l
Titanium dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
Ethylbenzene	Dermal	Rabbit	LD50 15,433 mg/kg
Ethylbenzene	Inhalation-Vapor (4 hours)	Rat	LC50 17.2 mg/l
Ethylbenzene	Ingestion	Rat	LD50 4,769 mg/kg
Calcium Oxide	Ingestion	Rat	LD50 500-2000 mg/kg
Distillates (petroleum), hydrotreated light	Dermal	Rabbit	LD50 > 3,160 mg/kg
Distillates (petroleum), hydrotreated light	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 3.0 mg/l
Distillates (petroleum), hydrotreated light	Ingestion	Rat	LD50 > 5,000 mg/kg
4,4'-methylenediphenyl diisocyanate	Dermal		LD50 > 5,000 mg/kg
4,4'-methylenediphenyl diisocyanate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.369 mg/l
4,4'-methylenediphenyl diisocyanate	Ingestion	Rat	LD50 31,600 mg/kg
Toluene-4-sulphonamide	Ingestion	Rat	LD50 > 2,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Urethane polymer		No data available
Poly(Vinyl Chloride)		No data available
Sulphonic acids, C10-21-alkane, phenyl esters		No significant irritation
Xylene		Mild irritant
Titanium dioxide		No significant irritation
Ethylbenzene		Mild irritant
Calcium Oxide		Corrosive
Distillates (petroleum), hydrotreated light		Mild irritant
4,4'-methylenediphenyl diisocyanate		Irritant
Toluene-4-sulphonamide		No data available

Serious Eye Damage/Irritation

Name	Species	Value
Urethane polymer		No data available
Poly(Vinyl Chloride)		No data available
Sulphonic acids, C10-21-alkane, phenyl esters		No significant irritation
Xylene		Mild irritant
Titanium dioxide		Mild irritant
Ethylbenzene		Moderate irritant
Calcium Oxide		Corrosive
Distillates (petroleum), hydrotreated light		Mild irritant
4,4'-methylenediphenyl diisocyanate		Severe irritant
Toluene-4-sulphonamide		No data available

Skin Sensitisation

Name	Species	Value
Urethane polymer		No data available

Poly(Vinyl Chloride)		No data available
Sulphonic acids, C10-21-alkane, phenyl esters		No data available
Xylene		No data available
Titanium dioxide		Not sensitizing
Ethylbenzene		Not sensitizing
Calcium Oxide		No data available
Distillates (petroleum), hydrotreated light		Not sensitizing
4,4'-methylenediphenyl diisocyanate		Sensitising
Toluene-4-sulphonamide		No data available

Respiratory Sensitisation

Name	Species	Value
Urethane polymer		No data available
Poly(Vinyl Chloride)		No data available
Sulphonic acids, C10-21-alkane, phenyl esters		No data available
Xylene		No data available
Titanium dioxide		No data available
Ethylbenzene		No data available
Calcium Oxide		No data available
Distillates (petroleum), hydrotreated light		No data available
4,4'-methylenediphenyl diisocyanate		Sensitising
Toluene-4-sulphonamide		No data available

Germ Cell Mutagenicity

Name	Route	Value
Urethane polymer		No data available
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	Ingestion	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
4,4'-methylenediphenyl diisocyanate	In vivo	Some positive data exist, but the data are not sufficient for classification
Toluene-4-sulphonamide		No data available

Carcinogenicity

Name	Route	Species	Value
Urethane polymer			No data available
Poly(Vinyl Chloride)	Not specified.		Some positive data exist, but the data are not sufficient for classification
Sulphonic acids, C10-21-alkane, phenyl esters			No data available
Xylene	Dermal		Not carcinogenic
Xylene	Ingestion		Not carcinogenic
Xylene	Inhalation		Some positive data exist, but the data are not sufficient for classification
Titanium dioxide	Ingestion		Not carcinogenic
Titanium dioxide	Inhalation		Some positive data exist, but the data are not sufficient for classification
Ethylbenzene	Inhalation		Carcinogenic.
Calcium Oxide			No data available
Distillates (petroleum), hydrotreated light	Dermal		Some positive data exist, but the data are not sufficient for classification
4,4'-methylenediphenyl diisocyanate	Inhalation		Some positive data exist, but the data

			are not sufficient for classification
Toluene-4-sulphonamide			No data available

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Urethane polymer		No data available			
Poly(Vinyl Chloride)	Not specified.	Not toxic to reproduction and/or development		NOAEL N/A	
Sulphonic acids, C10-21-alkane, phenyl esters	Ingestion	Not toxic to reproduction and/or development		NOAEL 530 mg/kg/day	
Xylene	Ingestion	Some positive reproductive/developmental data exist, but the data are not sufficient for classification		LOAEL 2,060 mg/kg/day	
Xylene	Inhalation	Some positive reproductive/developmental data exist, but the data are not sufficient for classification		NOAEL N/A	
Titanium dioxide		No data available			
Ethylbenzene	Inhalation	Some positive reproductive/developmental data exist, but the data are not sufficient for classification		LOEL 0.43 mg/l	
Calcium Oxide		No data available			
Distillates (petroleum), hydrotreated light	Inhalation	Not toxic to reproduction and/or development		NOAEL 364 ppm	
4,4'-methylenediphenyl diisocyanate	Inhalation	Some positive reproductive/developmental data exist, but the data are not sufficient for classification		NOEL 0.004 mg/l	
Toluene-4-sulphonamide		No data available			

Lactation

Name	Route	Species	Value
Xylene	Ingestion		Does not cause 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
Urethane polymer			No data available			
Poly(Vinyl	Inhalation	respiratory	May cause		NOAEL N/A	

Chloride)		system	damage to organs			
Poly(Vinyl Chloride)	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		Irritation Positive	
Sulphonic acids, C10-21-alkane, phenyl esters			No data available			
Xylene	Inhalation	auditory system	Causes damage to organs		LOAEL 6.3 mg/l	
Xylene	Inhalation	central nervous system depression	May cause drowsiness or dizziness		LOAEL 0.43 mg/l	
Xylene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		Irritation Positive	
Xylene	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification		NOEL N/A	
Xylene	Inhalation	eyes	Some positive data exist, but the data are not sufficient for classification		NOEL 3.5 mg/l	
Xylene	Inhalation	nervous system	All data are negative		NOAEL 0.65 mg/l	
Xylene	Ingestion	central nervous system depression	May cause drowsiness or dizziness		NOAEL N/A	
Xylene	Ingestion	eyes	Some positive data exist, but the data are not sufficient for classification		NOEL 125 mg/kg	
Titanium dioxide	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		Irritation Positive	
Ethylbenzene	Inhalation	central nervous system depression	May cause drowsiness or dizziness		LOAEL 0.43 mg/l	
Ethylbenzene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		Irritation Positive	
Calcium Oxide	Inhalation	respiratory irritation	May cause respiratory irritation		Corrosion Positive	
Distillates (petroleum), hydrotreated light	Inhalation	central nervous system depression	May cause drowsiness or dizziness		NOAEL N/A	
Distillates	Inhalation	respiratory	Some positive		Irritation	

(petroleum), hydrotreated light		irritation	data exist, but the data are not sufficient for classification		Positive	
4,4'-methylenedip henyl diisocyanate	Inhalation	respiratory irritation	May cause respiratory irritation		Irritation Positive	
Toluene-4-sulphonamide			No data available			

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Urethane polymer			No data available			
Poly(Vinyl Chloride)	Inhalation	pneumoconiosis	May cause damage to organs though prolonged or repeated exposure		LOAEL 0.013 mg/l	
Poly(Vinyl Chloride)	Inhalation	pulmonary fibrosis	All data are negative		NOAEL 0.013 mg/l	
Sulphonic acids, C10-21-alkane, phenyl esters	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification		LOEL 55.4 mg/kg/day	
Sulphonic acids, C10-21-alkane, phenyl esters	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification		NOEL 228 mg/kg/day	
Xylene	Inhalation	nervous system	Causes damage to organs through prolonged or repeated exposure		LOAEL 0.4 mg/l	
Xylene	Inhalation	auditory system	May cause damage to organs though prolonged or repeated exposure		LOAEL 7.8 mg/l	
Xylene	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification		NOEL N/A	
Xylene	Inhalation	heart | endocrine system | hematopoietic system | muscles | kidney and/or bladder | respiratory system	All data are negative		NOAEL 3.5 mg/l	
Xylene	Ingestion	liver | kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification		NOEL N/A	
Xylene	Ingestion	auditory system	Some positive		LOEL 900	

			data exist, but the data are not sufficient for classification		mg/kg/day	
Xylene	Ingestion	heart | skin | endocrine system | bone, teeth, nails, and/or hair | hematopoietic system | immune system | nervous system | respiratory system	All data are negative		NOAEL 1,000 mg/kg/day	
Titanium dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification		NOEL 10 mg/m3	
Titanium dioxide	Inhalation	pulmonary fibrosis	All data are negative		NOAEL N/A	
Ethylbenzene	Inhalation	liver | kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification		NOAEL 1.1 mg/l	
Ethylbenzene	Inhalation	hematopoietic system	Some positive data exist, but the data are not sufficient for classification		NOEL 1.6 mg/l	
Ethylbenzene	Inhalation	auditory system	Some positive data exist, but the data are not sufficient for classification		NOEL 1.3 mg/l	
Ethylbenzene	Inhalation	endocrine system	Some positive data exist, but the data are not sufficient for classification		NOEL 0.32 mg/l	
Ethylbenzene	Inhalation	bone, teeth, nails, and/or hair | muscles	All data are negative		NOAEL 4.2 mg/l	
Ethylbenzene	Inhalation	heart | immune system | respiratory system	All data are negative		NOAEL 3.2 mg/l	
Ethylbenzene	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification		NOEL 136 mg/kg/day	
Ethylbenzene	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification		NOEL 136 mg/kg	
Calcium Oxide			No data available			

Distillates (petroleum), hydrotreated light	Dermal	bone, teeth, nails, and/or hair	Some positive data exist, but the data are not sufficient for classification		NOEL N/A	
Distillates (petroleum), hydrotreated light	Dermal	liver	Some positive data exist, but the data are not sufficient for classification		NOEL 1,000 mg/kg/day	
Distillates (petroleum), hydrotreated light	Inhalation	hematopoietic system	All data are negative		NOAEL 0.1 mg/l	
Distillates (petroleum), hydrotreated light	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification		NOEL 100 mg/kg/day	
Distillates (petroleum), hydrotreated light	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification		LOAEL 100 mg/kg	
4,4'-methylenedip henyl diisocyanate	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure		LOAEL 0.004 mg/l	
Toluene-4-sulphonamide			No data available			

Aspiration Hazard

Name	Value
Urethane polymer	Not an aspiration hazard
Poly(Vinyl Chloride)	Not an aspiration hazard
Sulphonic acids, C10-21-alkane, phenyl esters	Not an aspiration hazard
Xylene	Aspiration hazard
Titanium dioxide	Not an aspiration hazard
Ethylbenzene	Aspiration hazard
Calcium Oxide	Not an aspiration hazard
Distillates (petroleum), hydrotreated light	Aspiration hazard
4,4'-methylenediphenyl diisocyanate	Not an aspiration hazard
Toluene-4-sulphonamide	Not an 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 be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity

Acute aquatic hazard:
Not acutely toxic to aquatic life by GHS criteria.

Chronic aquatic hazard:
Not chronically toxic to aquatic life by GHS criteria.

No product test data available.

Material	CAS Nbr	Organism	Type	Exposure	Test endpoint	Test result
Ethylbenzene	100-41-4	Water flea	Experimental	24 hours	EC50	1.81 mg/l
Ethylbenzene	100-41-4	Rainbow trout	Experimental	96 hours	LC50	4.2 mg/l
Ethylbenzene	100-41-4	Green algae	Laboratory	96 hours	EC50	3.6 mg/l
Sulphonic acids, C10-21-alkane, phenyl esters	91082-17-6		No data available.			
Titanium dioxide	13463-67-7	Crustacea other	Experimental	96 hours	EC50	>300 mg/l
Titanium dioxide	13463-67-7	Water flea	Experimental	48 hours	EC50	>100 mg/l
Titanium dioxide	13463-67-7	Sheepshead Minnow	Experimental	96 hours	LC50	>240 mg/l
Titanium dioxide	13463-67-7	Fish	Experimental	30 days	NOEC	>=1,000 mg/l
Titanium dioxide	13463-67-7	Water flea	Experimental	30 days	NOEC	3 mg/l
Xylene	1330-20-7	Rainbow trout	Experimental	96 hours	LC50	2.6 mg/l
Xylene	1330-20-7	Water flea	Experimental	48 hours	EC50	1.1 mg/l
Xylene	1330-20-7	Green algae	Experimental	72 hours	EC50	0.8 mg/l
Xylene	1330-20-7	Water flea	Experimental	21 days	NOEC	0.41 mg/l
Xylene	1330-20-7	Green algae	Experimental	72 hours	NOEC	0.73 mg/l
4,4'-methylenediphenyl diisocyanate	101-68-8		No data available.			
Urethane polymer	68130-40-5		No data available.			
Toluene-4-sulphonamide	70-55-3	Ricefish	Experimental	96 hours	LC50	435 mg/l
Toluene-4-sulphonamide	70-55-3	Water flea	Experimental	24 hours	EC50	150 mg/l
Toluene-4-sulphonamide	70-55-3	Green algae	Analogous Compound	72 hours	EC50	170 mg/l
Toluene-4-sulphonamide	70-55-3	Water flea	Analogous Compound	21 days	NOEC	49 mg/l
Toluene-4-sulphonamide	70-55-3	Green algae	Analogous Compound	72 hours	NOEC	7.6 mg/l
Calcium Oxide	1305-78-8	Common Carp	Laboratory	96 hours	LC50	1,070 mg/l
Distillates (petroleum), hydrotreated light	64742-47-8		No data available.			
Poly(Vinyl Chloride)	9002-86-2		No data available.			

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Ethylbenzene	100-41-4	Experimental Photolysis		Photolytic half-life (in air)	4.26 days (t 1/2)	
Ethylbenzene	100-41-4	Laboratory Biodegradation	14 days	BOD	81 % weight	Other methods
Sulphonic acids, C10-21-alkane, phenyl esters	91082-17-6	No data available.	N/A	N/A	N/A	N/A
Titanium dioxide	13463-67-7	No data available.	N/A	N/A	N/A	N/A
Xylene	1330-20-7	Laboratory Photolysis		Photolytic half-life (in air)	1.4 days (t 1/2)	Other methods
4,4'-methylenediphenyl diisocyanate	101-68-8	Estimated Photolysis		Photolytic half-life (in air)	2.4 days (t 1/2)	Other methods
4,4'-methylenediphenyl diisocyanate	101-68-8	Experimental Hydrolysis		Hydrolytic half-life	<2 hours (t 1/2)	Other methods
4,4'-methylenediphenyl diisocyanate	101-68-8	Experimental Biodegradation	28 days	BOD	0 % weight	OECD 301C - MITI test (I)
Urethane polymer	68130-40-5	No data available.	N/A	N/A	N/A	N/A
Toluene-4-sulphonamide	70-55-3	Modeled Photolysis		Photolytic half-life (in air)	26 days (t 1/2)	Other methods
Toluene-4-sulphonamide	70-55-3	Experimental Hydrolysis		Hydrolytic half-life	>1 years (t 1/2)	Other methods
Toluene-4-sulphonamide	70-55-3	Experimental Biodegradation	28 days	BOD	3 % weight	OECD 301C - MITI test (I)
Calcium Oxide	1305-78-8	No data available.	N/A	N/A	N/A	N/A
Distillates (petroleum), hydrotreated light	64742-47-8	No data available.	N/A	N/A	N/A	N/A
Poly(Vinyl Chloride)	9002-86-2	No data available.	N/A	N/A	N/A	N/A

12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Ethylbenzene	100-41-4	Experimental BCF - Other		Bioaccumulation factor	15	Other methods
Ethylbenzene	100-41-4	Experimental Bioconcentration		Log Kow	3.15	Other methods
Sulphonic acids, C10-21-alkane, phenyl esters	91082-17-6	No data available.	N/A	N/A	N/A	N/A

Titanium dioxide	13463-67-7	Experimental BCF - Other	42 days	Bioaccumulation factor	9.6	Other methods
Xylene	1330-20-7	Laboratory BCF - Rainbow Tr	56 days	Bioaccumulation factor	14	Other methods
4,4'-methylenediphenyl diisocyanate	101-68-8	Experimental BCF-Carp	28 days	Bioaccumulation factor	200	Other methods
Urethane polymer	68130-40-5	No data available.	N/A	N/A	N/A	N/A
Toluene-4-sulphonamide	70-55-3	Analogous Compound BCF - Other	42 days	Bioaccumulation factor	2.6	OECD 305E - Bioaccumulation flow-through fish test
Calcium Oxide	1305-78-8	No data available.	N/A	N/A	N/A	N/A
Distillates (petroleum), hydrotreated light	64742-47-8	No data available.	N/A	N/A	N/A	N/A
Poly(Vinyl Chloride)	9002-86-2	No data available.	N/A	N/A	N/A	N/A

12.4. Mobility in soil
Please contact manufacturer for more details

12.5. Results of the PBT and vPvB assessment

No information available at this time, contact manufacturer for more details

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 in a permitted waste incineration facility. Dispose of waste product in a permitted industrial waste facility. Proper destruction may require the use of additional fuel during incineration processes. Combustion products will include halogen acid (HCl/HF/HBr). Facility must be capable of handling halogenated materials. 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-3000-0115-8

FI-3000-0253-7

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 carc.	International Agency 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	Carc.Cat.3	Regulation (EC) No. 1272/2008, Table 3.2
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
Not applicable

SECTION 16: Other information

List of relevant H statements

EUH066	Repeated exposure may cause skin dryness or cracking.
EUH071	Corrosive to the respiratory tract.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
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.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.

List of relevant R-phrases

R10	Flammable.
R11	Highly flammable.
R20	Harmful by inhalation.
R21	Harmful in contact with skin.
R22	Harmful if swallowed.
R34	Causes burns.
R36	Irritating to eyes.
R37	Irritating to respiratory system.
R38	Irritating to skin.
R40	Limited evidence of a carcinogenic effect.
R42	May cause sensitisation by inhalation.
R43	May cause sensitisation by skin contact.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R63	Possible risk of harm to the unborn child.
R65	Harmful: May cause lung damage if swallowed.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

Revision information:

Revision Changes:
Section 8: Respiratory protection - recommended respirators information was modified.
Section 8: Respiratory protection - recommended respirators was modified.
Section 2: Label ingredient information was modified.
Section 1: Product identification numbers was modified.
Section 15: Carcinogenicity information was modified.
Section 16: List of relevant R phrase information was modified.
Section 3: Composition/ Information of ingredients table was modified.
Section 2: Indication of danger information was modified.
Section 12: Component ecotoxicity information was modified.
Section 12: Persistence and Degradability information was modified.
Section 12:Bioccumulative potential information was modified.
Copyright was modified.
Aspiration Hazard Table was modified.
Section 11: Acute Toxicity table was modified.
Carcinogenicity Table was modified.
Serious Eye Damage/Irritation Table was modified.
Germ Cell Mutagenicity Table was modified.
Skin Sensitisation Table was modified.
Respiratory Sensitisation Table was modified.
Lactation Table was modified.
Reproductive Toxicity Table was modified.
Skin Corrosion/Irritation Table was modified.
Target Organs - Repeated Table was modified.
Target Organs - Single Table was modified.
Section 6: Accidental release clean-up information was modified.
Section 7: Precautions safe handling information was modified.
Section 7: Conditions safe storage was modified.
Section 13: Standard Phrase Category Waste GHS was modified.
Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material. was modified.

Section 8: Respiratory protection - recommended respirators guide was added.
Label: Signal Word - Header was added.
Label: Signal Word was added.
Label: CLP Classification - Header was added.
Label: CLP Classification was added.
Label: CLP Classification was added.
Label: CLP Classification - Header was added.
Label: CLP Percent Unknown was added.
Label: Graphic was added.
Label: Graphic was added.
Label: Symbol was added.
Label: Symbol was added.
Label: CLP Precautionary - Prevention was added.
Label: CLP Precautionary - Prevention - Header was added.
Label: CLP Precautionary - Response was added.
Label: CLP Precautionary - Response - Header was added.
Label: Precautionary Statement - Header was added.
CLP: Ingredient table was added.
Label: CLP Supplemental Hazard Statements was added.
Label: CLP Supplemental Hazard Statements - Header was added.
Label: CLP Supplemental Information - Header was added.
Section 2: 2.2 & 2.3. CLP REGULATION heading was added.
Label: CLP Ingredients table Ingredient heading was added.
Label: CLP Ingredients table CAS No heading was added.
Label: CLP Ingredients table Percent by Wt heading was added.
Section 2: R phrase reference was added.
Label: Graphic was added.
Label: Graphic was added.
Label: Graphic Text was added.
Section 9: Flammability (solid, gas) information was added.
Section 2: Symbol was deleted.
Section 2: Symbols heading was deleted.
Section 11: UN GHS Classification table heading was deleted.
Section 11: Lactation table - UN GHS Classification heading was deleted.

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