



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 Scotch-weld 3070 FST Thermoexpandable Structural Adhesive Film

Product Identification Numbers

FS-9100-3676-3

7000080031

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

Identified uses

Structural adhesive.

1.3. Details of the supplier of the safety data sheet

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

1.4. Emergency telephone number

+44 (0)1344 858 000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

CLP REGULATION (EC) No 1272/2008

CLASSIFICATION:

Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315
Respiratory Sensitization, Category 1 - Resp. Sens. 1; H334
Skin Sensitization, Category 1 - Skin Sens. 1; H317
Hazardous to the Aquatic Environment (Chronic), Category 2 - Aquatic Chronic 2; H411

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) | GHS09 (Environment) |

Pictograms



Ingredients:

Ingredient	CAS Nbr	EC No.	% by Wt
Phenol-formaldehyde polymer, glycidyl ether reaction product: bisphenol-A-(epichlorhydrin)	28064-14-4		10 - 30
2-Propenenitrile, polymer with 1,3-butadiene, carboxy-terminated, polymers with bisphenol A and epichlorhydrin reaction product: bisphenol-A-(epichlorhydrin) (MW>700, <=1200)	25068-38-6	500-033-5	5 - 10
	68610-41-3		3 - 7
3,7-Dinitroso-1,3,5,7-tetraazabicyclo[3.3.1]nonane	25068-38-6	500-033-5	1 - 3
	101-25-7	202-928-3	1 - 3

HAZARD STATEMENTS:

H315	Causes skin irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H411	Toxic 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.
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Contains 8% of components with unknown hazards to the aquatic environment.

Notes on labelling

Eye Irrit. 2 (H319) is not applied due to the nature of this product (adhesive film).

3M Scotch-weld 3070 FST Thermoexpandable Structural Adhesive Film**2.3. Other hazards**

None known.

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	EC No.	REACH Registration No.	% by Wt	Classification
aluminium hydroxide	21645-51-2	244-492-7	01-2119529246-39	30 - 60	Substance with a Community level exposure limit in the workplace
Phenol-formaldehyde polymer, glycidyl ether	28064-14-4			10 - 30	Skin Sens. 1, H317; Aquatic Chronic 2, H411
Glass bubbles	65997-17-3	266-046-0		5 - 10	Substance with a Community level exposure limit in the workplace
reaction product: bisphenol-A-(epichlorhydrin)	25068-38-6	500-033-5	01-2119456619-26	5 - 10	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; Aquatic Chronic 2, H411
2-Propenenitrile, polymer with 1,3-butadiene, carboxy-terminated, polymers with bisphenol A and epichlorhydrin	68610-41-3			3 - 7	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1B, H317
3,7-Dinitroso-1,3,5,7-tetraazabicyclo[3.3.1]nonane	101-25-7	202-928-3		1 - 3	Self-react. CD, H242; Acute Tox. 4, H302; Resp. Sens. 1, H334
Dicyandiamide	461-58-5	207-312-8		1 - 3	Substance not classified as hazardous
4,4'-Methylenediphenylene bis(dimethylurea)	10097-09-3		01-0000016986-54	1 - 3	Substance not classified as hazardous
reaction product: bisphenol-A-(epichlorhydrin) (MW>700, <=1200)	25068-38-6	500-033-5		1 - 3	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317

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

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist,

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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

Substance

Aldehydes.
formaldehyde
Carbon monoxide
Carbon dioxide.
Hydrogen Chloride
Hydrogen cyanide.
Ammonia
Oxides of nitrogen.

Condition

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

5.3. Advice for fire-fighters

When fire fighting conditions are severe and total thermal decomposition of the product is possible, wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, tunic and trousers (leggings), 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. Sweep up. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. 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

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7.1. Precautions for safe handling

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

7.2. Conditions for safe storage including any incompatibilities

Store away from heat.

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
DUST, INERT OR NUISANCE	21645-51-2	UK HSC	TWA(as inhalable dust):10 mg/m ³ ;TWA(as respirable dust):4 mg/m ³	
Glass bubbles	65997-17-3	Manufacturer determined	TWA(as non-fibrous, inhalable fraction)(8 hours):10 mg/m ³ ;TWA(as non-fibrous, respirable)(8 hours):3 mg/m ³	
Glass, oxide, chemicals	65997-17-3	UK HSC	TWA(as fiber):5 mg/m ³ (1 fibers/ml)	

UK HSC : UK Health and Safety Commission

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

Biological limit values

No biological limit values exist for any of the components listed in Section 3 of this safety data sheet.

Recommended monitoring procedures:Information on recommended monitoring procedures can be obtained from UK HSC

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

None required.

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.

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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
Polymer laminate	No data available	No data available

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 - 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

Thermal hazards

Wear heat insulating gloves when handling hot material to prevent thermal burns.

Applicable Norms/Standards

Use gloves tested to EN 407

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state

Solid.

Colour

Light Pink-Brown

Specific Physical Form:

Film

Odor

Slight Epoxy

Odour threshold

No data available.

pH

Not applicable.

Boiling point/boiling range

Not applicable.

Melting point

No data available.

Flammability (solid, gas)

Not classified

Explosive properties

Not classified

Oxidising properties

Not classified

Flash point

≥ 100 °C [*Test Method: Closed Cup*]

Autoignition temperature

No data available.

Flammable Limits(LEL)

Not applicable.

Flammable Limits(UEL)

Not applicable.

Vapour pressure

Not applicable.

Relative density

1.24 [*Ref Std: WATER=1*]

Water solubility

Nil

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Solubility- non-water	<i>No data available.</i>
Partition coefficient: n-octanol/water	<i>No data available.</i>
Evaporation rate	<i>No data available.</i>
Vapour density	<i>Not applicable.</i>
Decomposition temperature	<i>No data available.</i>
Viscosity	<i>No data available.</i>
Density	<i>No data available.</i>

9.2. Other information

EU Volatile Organic Compounds *No data available.*

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

Avoid curing large quantities of material to prevent a premature reaction (exotherm) with production of intense heat and smoke.

Heat.

10.5 Incompatible materials

None known.

10.6 Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
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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

Allergic respiratory reaction: Signs/symptoms may include difficulty breathing, wheezing, cough, and tightness of chest.

Skin contact

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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.

Ingestion

Physical Blockage: Signs/symptoms may include cramping, abdominal pain, and constipation.

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	Ingestion		No data available; calculated ATE >5,000 mg/kg
aluminium hydroxide	Dermal		LD50 estimated to be > 5,000 mg/kg
aluminium hydroxide	Ingestion	Rat	LD50 > 5,000 mg/kg
Phenol-formaldehyde polymer, glycidyl ether	Dermal	Rabbit	LD50 > 6,000 mg/kg
Phenol-formaldehyde polymer, glycidyl ether	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 1.7 mg/l
Phenol-formaldehyde polymer, glycidyl ether	Ingestion	Rat	LD50 > 4,000 mg/kg
reaction product: bisphenol-A-(epichlorhydrin)	Dermal	Rat	LD50 > 1,600 mg/kg
reaction product: bisphenol-A-(epichlorhydrin)	Ingestion	Rat	LD50 > 1,000 mg/kg
Glass bubbles	Dermal		LD50 estimated to be > 5,000 mg/kg
Glass bubbles	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
2-Propenenitrile, polymer with 1,3-butadiene, carboxy-terminated, polymers with bisphenol A and epichlorhydrin	Dermal	Not available	LD50 3,000 mg/kg
2-Propenenitrile, polymer with 1,3-butadiene, carboxy-terminated, polymers with bisphenol A and epichlorhydrin	Ingestion	Not available	LD50 > 34,000 mg/kg
Dicyandiamide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Dicyandiamide	Ingestion	Rat	LD50 > 30,000 mg/kg
3,7-Dinitroso-1,3,5,7-tetraazabicyclo[3.3.1]nonane	Ingestion	Rat	LD50 940 mg/kg
reaction product: bisphenol-A-(epichlorhydrin) (MW>700, <=1200)	Dermal	Rat	LD50 > 1,600 mg/kg
reaction product: bisphenol-A-(epichlorhydrin) (MW>700, <=1200)	Ingestion	Rat	LD50 > 1,000 mg/kg
4,4'-Methylenediphenylene bis(dimethylurea)	Dermal	Rabbit	LD50 > 2,000 mg/kg
4,4'-Methylenediphenylene bis(dimethylurea)	Ingestion	Rat	LD50 > 5,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
aluminium hydroxide	Rabbit	No significant irritation
Phenol-formaldehyde polymer, glycidyl ether	Rabbit	Minimal irritation
reaction product: bisphenol-A-(epichlorhydrin)	Rabbit	Mild irritant
Glass bubbles	Professional judgement	No significant irritation
2-Propenenitrile, polymer with 1,3-butadiene, carboxy-terminated, polymers with bisphenol A and epichlorhydrin	similar compounds	Irritant
Dicyandiamide	Human and animal	Minimal irritation
reaction product: bisphenol-A-(epichlorhydrin) (MW>700, <=1200)	Rabbit	Mild irritant
4,4'-Methylenediphenylene bis(dimethylurea)	Rabbit	Minimal irritation

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Serious Eye Damage/Irritation

Name	Species	Value
aluminium hydroxide	Rabbit	No significant irritation
Phenol-formaldehyde polymer, glycidyl ether	Rabbit	Mild irritant
reaction product: bisphenol-A-(epichlorhydrin)	Rabbit	Moderate irritant
Glass bubbles	Professional judgement	No significant irritation
2-Propenenitrile, polymer with 1,3-butadiene, carboxy-terminated, polymers with bisphenol A and epichlorhydrin	similar compounds	Severe irritant
Dicyandiamide	Professional judgement	Mild irritant
reaction product: bisphenol-A-(epichlorhydrin) (MW>700, <=1200)	Rabbit	Moderate irritant
4,4'-Methylenediphenylene bis(dimethylurea)	Rabbit	Mild irritant

Skin Sensitisation

Name	Species	Value
aluminium hydroxide	Guinea pig	Not classified
Phenol-formaldehyde polymer, glycidyl ether	Human and animal	Sensitising
reaction product: bisphenol-A-(epichlorhydrin)	Human and animal	Sensitising
2-Propenenitrile, polymer with 1,3-butadiene, carboxy-terminated, polymers with bisphenol A and epichlorhydrin	similar compounds	Sensitising
Dicyandiamide	Guinea pig	Not classified
reaction product: bisphenol-A-(epichlorhydrin) (MW>700, <=1200)	Human and animal	Sensitising

Respiratory Sensitisation

Name	Species	Value
reaction product: bisphenol-A-(epichlorhydrin)	Human	Not classified
3,7-Dinitroso-1,3,5,7-tetraazabicyclo[3.3.1]nonane	Professional judgement	Sensitising
reaction product: bisphenol-A-(epichlorhydrin) (MW>700, <=1200)	Human	Not classified

Germ Cell Mutagenicity

Name	Route	Value
Phenol-formaldehyde polymer, glycidyl ether	In Vitro	Some positive data exist, but the data are not sufficient for classification
reaction product: bisphenol-A-(epichlorhydrin)	In vivo	Not mutagenic
reaction product: bisphenol-A-(epichlorhydrin)	In Vitro	Some positive data exist, but the data are not sufficient for classification
Glass bubbles	In Vitro	Some positive data exist, but the data are not sufficient for classification
Dicyandiamide	In Vitro	Not mutagenic
3,7-Dinitroso-1,3,5,7-tetraazabicyclo[3.3.1]nonane	In vivo	Not mutagenic
3,7-Dinitroso-1,3,5,7-tetraazabicyclo[3.3.1]nonane	In Vitro	Some positive data exist, but the data are not

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		sufficient for classification
reaction product: bisphenol-A-(epichlorhydrin) (MW>700, <=1200)	In vivo	Not mutagenic
reaction product: bisphenol-A-(epichlorhydrin) (MW>700, <=1200)	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
aluminium hydroxide	Not specified.	Multiple animal species	Not carcinogenic
reaction product: bisphenol-A-(epichlorhydrin)	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Glass bubbles	Inhalation	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
Dicyandiamide	Ingestion	Rat	Not carcinogenic
reaction product: bisphenol-A-(epichlorhydrin) (MW>700, <=1200)	Dermal	Mouse	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
aluminium hydroxide	Ingestion	Not classified for development	Rat	NOAEL 768 mg/kg/day	during organogenesis
reaction product: bisphenol-A-(epichlorhydrin)	Ingestion	Not classified for female reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
reaction product: bisphenol-A-(epichlorhydrin)	Ingestion	Not classified for male reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
reaction product: bisphenol-A-(epichlorhydrin)	Dermal	Not classified for development	Rabbit	NOAEL 300 mg/kg/day	during organogenesis
reaction product: bisphenol-A-(epichlorhydrin)	Ingestion	Not classified for development	Rat	NOAEL 750 mg/kg/day	2 generation
Dicyandiamide	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	prematuring & during gestation
Dicyandiamide	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	44 days
Dicyandiamide	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	prematuring & during gestation
reaction product: bisphenol-A-(epichlorhydrin) (MW>700, <=1200)	Ingestion	Not classified for female reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
reaction product: bisphenol-A-(epichlorhydrin) (MW>700, <=1200)	Ingestion	Not classified for male reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
reaction product: bisphenol-A-(epichlorhydrin) (MW>700, <=1200)	Dermal	Not classified for development	Rabbit	NOAEL 300 mg/kg/day	during organogenesis
reaction product: bisphenol-A-(epichlorhydrin) (MW>700, <=1200)	Ingestion	Not classified for development	Rat	NOAEL 750 mg/kg/day	2 generation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

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

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
reaction product: bisphenol-A-(epichlorhydrin)	Dermal	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	2 years
reaction product:	Dermal	nervous system	Not classified	Rat	NOAEL	13 weeks

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bisphenol-A-(epichlorhydrin)					1,000 mg/kg/day	
reaction product: bisphenol-A-(epichlorhydrin)	Ingestion	auditory system heart endocrine system hematopoietic system liver eyes kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days
Glass bubbles	Inhalation	respiratory system	Not classified	Human	NOAEL not available	occupational exposure
Dicyandiamide	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 6,822 mg/kg/day	13 weeks
reaction product: bisphenol-A-(epichlorhydrin) (MW>700, <=1200)	Dermal	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	2 years
reaction product: bisphenol-A-(epichlorhydrin) (MW>700, <=1200)	Dermal	nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	13 weeks
reaction product: bisphenol-A-(epichlorhydrin) (MW>700, <=1200)	Ingestion	auditory system heart endocrine system hematopoietic system liver eyes kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days

Aspiration Hazard

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

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

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
aluminium hydroxide	21645-51-2	Fish other	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
aluminium hydroxide	21645-51-2	Green Algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
aluminium hydroxide	21645-51-2	Water flea	Experimental	48 hours	No tox obs at lmt of water sol	>100 mg/l
aluminium hydroxide	21645-51-2	Green Algae	Experimental	72 hours	No tox obs at lmt of water sol	100 mg/l
Phenol-formaldehyde polymer, glycidyl ether	28064-14-4	Golden Orfe	Experimental	96 hours	LC50	5.7 mg/l
Phenol-formaldehyde polymer, glycidyl ether	28064-14-4	Water flea	Experimental	48 hours	EC50	3.5 mg/l
reaction product: bisphenol-A-(epichlorhydrin)	25068-38-6	Rainbow trout	Estimated	96 hours	LC50	2 mg/l

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reaction product: bisphenol-A- (epichlorhydrin)	25068-38-6	Water flea	Estimated	48 hours	LC50	1.8 mg/l
reaction product: bisphenol-A- (epichlorhydrin)	25068-38-6	Green Algae	Experimental	72 hours	EC50	>11 mg/l
reaction product: bisphenol-A- (epichlorhydrin)	25068-38-6	Green Algae	Experimental	72 hours	NOEC	4.2 mg/l
reaction product: bisphenol-A- (epichlorhydrin)	25068-38-6	Water flea	Experimental	21 days	NOEC	0.3 mg/l
Glass bubbles	65997-17-3	Green algae	Experimental	72 hours	EC50	>1,000 mg/l
Glass bubbles	65997-17-3	Water flea	Experimental	72 hours	EC50	>1,000 mg/l
Glass bubbles	65997-17-3	Zebra Fish	Experimental	96 hours	LC50	>1,000 mg/l
Glass bubbles	65997-17-3	Green algae	Experimental	72 hours	NOEC	>=1,000 mg/l
2-Propenenitrile, polymer with 1,3- butadiene, carboxy- terminated, polymers with bisphenol A and epichlorhydrin	68610-41-3		Data not available or insufficient for classification			
reaction product: bisphenol-A- (epichlorhydrin) (MW>700, <=1200)	25068-38-6		Data not available or insufficient for classification			
4,4'- Methylenediphenylene bis(dimethylurea)	10097-09-3	Green algae	Experimental	96 hours	EC50	29.4 mg/l
4,4'- Methylenediphenylene bis(dimethylurea)	10097-09-3	Rainbow trout	Experimental	96 hours	LC50	>30.2 mg/l
4,4'- Methylenediphenylene bis(dimethylurea)	10097-09-3	Water flea	Experimental	48 hours	EC50	>39.8 mg/l
4,4'- Methylenediphenylene bis(dimethylurea)	10097-09-3	Green algae	Experimental	72 hours	NOEC	5.9 mg/l
Dicyandiamide	461-58-5	Bluegill	Experimental	96 hours	LC50	>1,000 mg/l
Dicyandiamide	461-58-5	Green algae	Experimental	72 hours	EC50	>1,000 mg/l
Dicyandiamide	461-58-5	Water flea	Experimental	48 hours	EC50	3,177 mg/l
Dicyandiamide	461-58-5	Green algae	Experimental	72 hours	NOEC	310 mg/l
Dicyandiamide	461-58-5	Water flea	Experimental	21 days	NOEC	25 mg/l
3,7-Dinitroso-1,3,5,7- tetraazabicyclo[3.3.1]n onane	101-25-7		Data not available or insufficient for classification			

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
aluminium hydroxide	21645-51-2	Data not availbl- insufficient			N/A	
Phenol-formaldehyde polymer, glycidyl ether	28064-14-4	Laboratory Biodegradation	28 days	CO2 evolution	10-16 %CO2 evolution/THC O2 evolution (does not pass 10-day window)	OECD 301B - Modified sturm or CO2

3M Scotch-weld 3070 FST Thermoexpandable Structural Adhesive Film

reaction product: bisphenol-A-(epichlorhydrin)	25068-38-6	Experimental Hydrolysis		Hydrolytic half-life	117 hours (t 1/2)	Other methods
reaction product: bisphenol-A-(epichlorhydrin)	25068-38-6	Experimental Biodegradation	28 days	BOD	5 %BOD/COD	OECD 301F - Manometric respirometry
Glass bubbles	65997-17-3	Data not available - insufficient			N/A	
2-Propenenitrile, polymer with 1,3-butadiene, carboxy-terminated, polymers with bisphenol A and epichlorhydrin	68610-41-3	Data not available - insufficient			N/A	
reaction product: bisphenol-A-(epichlorhydrin) (MW>700, <=1200)	25068-38-6	Estimated Biodegradation	28 days	BOD	7 % BOD/ThBOD	OECD 301C - MITI test (I)
4,4'-Methylenediphenylene bis(dimethylurea)	10097-09-3	Experimental Biodegradation	28 days	CO2 evolution	31 % weight	OECD 301B - Modified sturm or CO2
Dicyandiamide	461-58-5	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	0 % weight	OECD 301E - Modified OECD Scre
3,7-Dinitroso-1,3,5,7-tetraazabicyclo[3.3.1]nonane	101-25-7	Experimental Biodegradation	28 days	BOD	64 % weight	OECD 301C - MITI test (I)

12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
aluminium hydroxide	21645-51-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Phenol-formaldehyde polymer, glycidyl ether	28064-14-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
reaction product: bisphenol-A-(epichlorhydrin)	25068-38-6	Experimental Bioconcentration		Log Kow	3.242	Other methods
Glass bubbles	65997-17-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
2-Propenenitrile, polymer with 1,3-butadiene, carboxy-terminated, polymers with bisphenol A and epichlorhydrin	68610-41-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
reaction product: bisphenol-A-(epichlorhydrin) (MW>700, <=1200)	25068-38-6	Estimated Bioconcentration		Bioaccumulation factor	7.4	Other methods
4,4'-Methylenediphenylene bis(dimethylurea)	10097-09-3	Experimental Bioconcentration		Log Kow	1.14	Other methods
Dicyandiamide	461-58-5	Experimental BCF-Carp	42 days	Bioaccumulation factor	<=3.1	OECD 305C-Bioaccum degree fish
3,7-Dinitroso-1,3,5,7-tetraazabicyclo[3.3.1]nonane	101-25-7	Estimated Bioconcentration		Log Kow	-1.7	Estimated: Octanol-water partition coefficient

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 completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. 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

FS-9100-3676-3

Component 1

ADR/RID: UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (EPOXY RESIN), 9, III, (-), ENVIRONMENTALLY HAZARDOUS, ADR Classification Code: M7.

IMDG-CODE: UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (EPOXY RESIN), 9, III, IMDG-Code segregation code: NONE, Marine Pollutant, (EPOXY RESIN), EMS: FA,SF.

ICAO/IATA: UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (EPOXY RESIN), 9, III, fish and tree marking may be required (> 5kg/l).

Component 2

ADR/RID: UN1845, CARBON DIOXID, SOLID, AS COOLANT, --.

IMDG-CODE: UN1845, CARBON DIOXIDE, SOLID, (DRY ICE), AS COOLANT(FORBIDDEN FOR SEA EXCEPT FOR SHORT EUROPEAN FERRYCROSSINGS), 9., IMDG-Code segregation code: NONE, longer distance allowed in Reefer Container, EMS: FC,SV.

ICAO/IATA: UN1845, CARBON DIOXIDE, SOLID, 9..

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>
3,7-Dinitroso-1,3,5,7-tetraazabicyclo[3.3.1]nonane	101-25-7	Gr. 3: Not classifiable	International Agency for Research on Cancer

15.2. Chemical Safety Assessment

A chemical safety assessment has not been carried out for this mixture. Chemical safety assessments for the contained substances may have been carried out by the registrants of the substances in accordance with Regulation (EC) No 1907/2006, as amended.

SECTION 16: Other information

List of relevant H statements

H242	Heating may cause a fire.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H411	Toxic to aquatic life with long lasting effects.

Revision information:

CLP: Ingredient table information was modified.
Label: CLP Classification information was modified.
Label: CLP Environmental Hazard Statements information was modified.
Label: CLP Percent Unknown information was deleted.
Label: CLP Percent Unknown information was modified.
Label: CLP Precautionary - Prevention information was modified.
Label: CLP Precautionary - Response information was modified.
Label: Graphic information was modified.
Label: Signal Word information was modified.
Section 3: Composition/ Information of ingredients table information was modified.
Section 5: Fire - Advice for fire fighters information information was modified.
Section 5: Hazardous combustion products table information was modified.
Section 6: Accidental release clean-up information information was modified.
Section 6: Accidental release personal information information was modified.
Section 7: Precautions safe handling information information was modified.
Section 8: Occupational exposure limit table information was modified.
Section 8: Personal Protection - Respiratory Information information was modified.
Section 8: Respiratory protection - recommended respirators guide information was added.
Section 8: Respiratory protection - recommended respirators information information was added.
Section 09: Color information was added.
Section 09: Odor information was added.
Sections 3 and 9: Odour, colour, grade information information was deleted.
Section 11: Acute Toxicity table information was modified.
Section 11: Carcinogenicity Table information was modified.
Section 11: Germ Cell Mutagenicity Table information was modified.
Section 11: Health Effects - Inhalation information information was modified.
Section 11: Reproductive and/or Developmental Effects text information was deleted.
Section 11: Reproductive Toxicity Table information was modified.
Section 11: Respiratory Sensitization 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 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.
Section 15: Chemical Safety Assessment information was added.

Section 15: Regulations - Inventories information was deleted.

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

Section 16: UK disclaimer information 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. In addition, this SDS is being provided to convey health and safety information. If you are the importer of record of this product into the European Union, you are responsible for all regulatory requirements, including, but not limited to, product registrations/notifications, substance volume tracking, and potential substance registration.

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