Safety Data Sheet

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Document group:	28-8293-4	**Version number:**	15.00
Revision date:	02/11/2026	**Supersedes date:**	08/10/2026
Transportation version number:			

This Safety Data Sheet has been prepared in accordance with the REACH Regulation (1907/2006) as amended by Regulation (EU) 2020/878

IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier
3M™ Scotchcast™ Flame-Retardant Compound 2131 (Parts A and B)

Product Identification Numbers
KE-2351-0891-4 KE-2351-0893-0

7000092517 7000092519

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

Identified uses
Electrical resin.

1.3. Details of the supplier of the safety data sheet

Address: 3M Ireland Limited, 70 SIR JOHN ROGERSON'S QUAY, D02R296 DUBLIN 2
Telephone: +353 1 280 3555
E Mail: ner-productstewardship@mmm.com

Website: www.3M.com

1.4. Emergency telephone number
Emergency medical information: 8am-10pm (seven days) contact National Poisons Information Centre, Beaumont Hospital, Dublin 9 DOV2NO, Ireland. Telephone Number: +353 (0)1 809 2166

This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet for each of these components is included. Please do not separate the component Safety Data Sheets from this cover page. The document numbers of the MSDSs for components of this product are:

28-7666-2, 28-7650-6

TRANSPORTATION INFORMATION

Refer to section 14 of the kit components for transport information.

KIT LABEL

2.1. Classification of the substance or mixture
CLP REGULATION (EC) No 1272/2008

CLASSIFICATION:
Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315
Serious Eye Damage/Eye Irritation, Category 1 - Eye Dam. 1; H318
Respiratory Sensitization, Category 1 - Resp. Sens. 1; H334
Skin Sensitization, Category 1 - Skin Sens. 1; H317
Carcinogenicity, Category 2 - Carc. 2; H351
Specific Target Organ Toxicity-Repeated Exposure, Category 2 - STOT RE 2; H373
Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H335
Hazardous to the Aquatic Environment (Chronic), Category 2 - Aquatic Chronic 2; H411
Very Persistent, Very Bioaccumulative – vPvB; EUH441

For full text of H phrases, see Section 16.

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

SIGNAL WORD
DANGER.

Symbols
GHS05 (Corrosion) |GHS07 (Exclamation mark) |GHS08 (Health Hazard) |GHS09 (Environment) |

Pictograms



Contains:
methylenediphenyl diisocyanate; 1,1'-Methylenebis[isocyanatobenzene], homopolymer; 1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]; 1,1'-Phenyliminodipropan-2-ol; 4,4'-methylenediphenyl diisocyanate; Polyoxyalkylenes.

HAZARD STATEMENTS:

H315	Causes skin irritation.
H318	Causes serious eye damage.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure: respiratory system.
H411	Toxic to aquatic life with long lasting effects.
EUH441	Strongly accumulates in the environment and living organisms including in humans.

PRECAUTIONARY STATEMENTS

Prevention:

P201	Obtain special instructions before use.
P261A	Avoid breathing vapours.
P273	Avoid release to the environment.
P280I	Wear protective gloves, eye protection, face protection, and respiratory protection.

Response:

P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTRE or doctor/physician.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician.
P391	Collect spillage.

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

<=125 ml Hazard statements

H318	Causes serious eye damage.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.
EUH441	Strongly accumulates in the environment and living organisms including in humans.

<=125 ml Precautionary statements

Prevention:

P201	Obtain special instructions before use.
P261A	Avoid breathing vapours.
P273	Avoid release to the environment.
P280I	Wear protective gloves, eye protection, face protection, and respiratory protection.

Response:

P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTRE or doctor/physician.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician.

Refer to Safety Data Sheet for component % unknown values (www.3M.com/msds).

Information required per Regulation (EU) 2020/1149 as regards diisocyanates:
As from 24 August 2023 adequate training is required before industrial or professional use. Further information can be found at feica.eu/Puinfo

Revision information:
Kit: Component document group number(s) information was modified.
Section 2: <125ml Hazard - Environmental information was modified.
Label: CLP Classification information was modified.
Label: CLP Environmental Hazard Statements information was modified.
Label: Graphic information was modified.

Safety Data Sheet

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Document group:	28-7650-6	**Version number:**	14.00
Revision date:	29/10/2026	**Supersedes date:**	16/02/2026

This Safety Data Sheet has been prepared in accordance with the REACH Regulation (1907/2006) as amended by Regulation (EU) 2020/878

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

1.1. Product identifier
3M™ Scotchcast™ Flame-Retardant Compound 2131 (Part A)

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

Identified uses
Electrical

1.3. Details of the supplier of the safety data sheet

Address:	3M Ireland Limited, 70 SIR JOHN ROGERSON'S QUAY, D02R296 DUBLIN 2
Telephone:	+353 1 280 3555
E Mail:	ner-productstewardship@mmm.com
Website:	www.3M.com

1.4. Emergency telephone number
Emergency medical information: 8am-10pm (seven days) contact National Poisons Information Centre, Beaumont Hospital, Dublin 9 DOV2NO, Ireland. Telephone Number: +353 (0)1 809 2166

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture
CLP REGULATION (EC) No 1272/2008

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

CLASSIFICATION:
Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315
Serious Eye Damage/Eye Irritation, Category 2 - Eye Irrit. 2; H319
Respiratory Sensitization, Category 1 - Resp. Sens. 1; H334
Skin Sensitization, Category 1 - Skin Sens. 1; H317
Carcinogenicity, Category 2 - Carc. 2; H351
Specific Target Organ Toxicity-Repeated Exposure, Category 2 - STOT RE 2; H373
Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H335

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
GHS07 (Exclamation mark) |GHS08 (Health Hazard) |GHS09 (Environment) |

Pictograms



Ingredients:

Ingredient	Identifier(s)	EC No.	% by Wt
Polyoxyalkylenes	154517-54-1		35 - 45
4,4'-methylenediphenyl diisocyanate	101-68-8	202-966-0	15 - 40
1,1'-Methylenebis[isocyanatobenzene], homopolymer	39310-05-9		10 - 30
methylenediphenyl diisocyanate	26447-40-5	247-714-0	1 - 5

HAZARD STATEMENTS:

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure: respiratory system.
H411	Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P261A	Avoid breathing vapours.
P273	Avoid release to the environment.
P280	Wear protective gloves, eye protection, and respiratory protection.

Response:

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

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

<=125 ml Hazard statements

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

<=125 ml Precautionary statements

Prevention:

P261A	Avoid breathing vapours.
P280	Wear protective gloves, eye protection, and respiratory protection.

Response:

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

1% of the mixture consists of components of unknown acute inhalation toxicity.
Contains 45% of components with unknown hazards to the aquatic environment.

Information required per Regulation (EU) 2020/1149 as regards diisocyanates:
As from 24 August 2023 adequate training is required before industrial or professional use. Further information can be found at feica.eu/Puinfo

2.3. Other hazards

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

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Ingredient	Identifier(s)	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Polyoxyalkylenes	(CAS-No.) 154517-54-1	35 - 45	Resp. Sens. 1, H334 Skin Sens. 1, H317
4,4'-methylenediphenyl diisocyanate	(CAS-No.) 101-68-8 (EC-No.) 202-966-0	15 - 40	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
1,1'-Methylenebis[isocyanatobenzene], homopolymer	(CAS-No.) 39310-05-9	10 - 30	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
Diundecyl phthalate	(CAS-No.) 3648-20-2 (EC-No.) 222-884-9 (REACH-No.) 01-2119471990-31	< 15	Substance not classified as hazardous
methylenediphenyl diisocyanate	(CAS-No.) 26447-40-5 (EC-No.) 247-714-0	1 - 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
triethyl phosphate	(CAS-No.) 78-40-0 (EC-No.) 201-114-5 (REACH-No.) 01-2119492852-28	< 1.2	Acute Tox. 4, H302 Eye Irrit. 2, H319
1,1,3-tris(3-tert-butyl-4-hydroxy-6-methylphenyl)butane	(CAS-No.) 1843-03-4 (EC-No.) 217-420-7	< 0.1	Skin Sens. 1, H317 Aquatic Chronic 1, H410,M=100

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

Specific Concentration Limits

Ingredient	Identifier(s)	Specific Concentration Limits
methylenediphenyl diisocyanate	(CAS-No.) 26447-40-5 (EC-No.) 247-714-0	(C >= 5%) Skin Irrit. 2, H315 (C >= 5%) Eye Irrit. 2, H319 (C >= 0.1%) Resp. Sens. 1, H334 (C >= 5%) STOT SE 3, H335
1,1'-Methylenebis[isocyanatobenzene], homopolymer	(CAS-No.) 39310-05-9	(C >= 5%) Skin Irrit. 2, H315 (C >= 5%) Eye Irrit. 2, H319 (C >= 0.1%) Resp. Sens. 1, H334 (C >= 5%) STOT SE 3, H335
4,4'-methylenediphenyl diisocyanate	(CAS-No.) 101-68-8 (EC-No.) 202-966-0	(C >= 5%) Skin Irrit. 2, H315 (C >= 5%) Eye Irrit. 2, H319 (C >= 0.1%) Resp. Sens. 1, H334 (C >= 5%) STOT SE 3, H335

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

SECTION 4: First aid measures

4.1. Description of first aid measures

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

Skin contact
Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms

develop, get medical attention.

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

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

4.2. Most important symptoms and effects, both acute and delayed
The most important symptoms and effects based on the CLP classification include:
Irritating to the respiratory tract (coughing, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain). Allergic respiratory reaction (difficulty breathing, wheezing, cough, and tightness of chest). Irritation to the skin (localized redness, swelling, itching, and dryness). Allergic skin reaction (redness, swelling, blistering, and itching). Serious irritation to the eyes (significant redness, swelling, pain, tearing, and impaired vision). Target organ effects. See Section 11 for additional details.

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
Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

Substance	Condition
Carbon monoxide	During combustion.
Carbon dioxide.	During combustion.
Hydrogen cyanide.	During combustion.
Oxides of nitrogen.	During combustion.

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. Use personal protective equipment based on the results of an exposure assessment. Refer to Section 8 for PPE recommendations. If anticipated exposure resulting from an accidental release exceeds the protective capabilities of the PPE listed in Section 8, or are unknown, select PPE that offers an appropriate level of protection. Consider the physical and chemical hazards of the material when doing so. Examples of PPE ensembles for emergency response could include wearing bunker gear for a release of flammable material; wearing chemical protective clothing if the spilled material is a corrosive, a sensitizer, a significant dermal irritant, or can be absorbed through the skin; or donning a positive pressure supplied-air respirator for chemicals with inhalation hazards. For information regarding physical and health hazards, refer to sections 2 and 11 of the SDS.

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

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

6.4. Reference to other sections
Refer to Section 8 and Section 13 for more information

SECTION 7: Handling and storage

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

7.2. Conditions for safe storage including any incompatibilities
Store in a well-ventilated place. Keep cool. Keep container tightly closed to prevent contamination with water or air. If contamination is suspected, do not reseal container. Protect from sunlight. Store away from heat. Store away from strong bases. Store away from areas where product may come into contact with food or pharmaceuticals. Store in a dry place.

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	Identifier(s)	Agency	Limit type	Additional comments
Isocyanates, All, except Methyl isocyanate (CAS No. 624-83-9) and Toluene (2,4 or 2,6 diisocyanate (CAS No. 584-84-9, 91-08-7)	101-68-8	Ireland OELs	TWA(8 hours):0.02 mg/m3;STEL(15 minutes):0.07 mg/m3	as NCO, Resp/Dermal sensitizer
4,4'-methylenediphenyl diisocyanate	101-68-8	Ireland OELs	TWA(as NCO)(8 hours):0.005 ppm;TWA(8 hours):0.005 ppm	as NCO, Resp/Dermal sensitizer, Respiratory/Dermal Sensitizer
Isocyanates, All, except Methyl isocyanate (CAS No. 624-83-9) and Toluene (2,4 or 2,6 diisocyanate (CAS No. 584-84-9, 91-08-7)	26447-40-5	Ireland OELs	TWA(8 hours):0.02 mg/m3;STEL(15 minutes):0.07 mg/m3	as NCO, Resp/Dermal sensitizer
Isocyanates, All, except Methyl	39310-05-9	Ireland OELs	TWA(8 hours):0.02	as NCO, Resp/Dermal

isocyanate (CAS No. 624-83-9) and Toluene (2,4 or 2,6 diisocyanate (CAS No. 584-84-9, 91-08-7)	mg/m3;STEL(15 minutes):0.07 sensitizer mg/m3

Ireland OELs : Ireland. OELs
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 Indust. Inspect./Ministry (IE)

8.2. Exposure controls

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

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Safety glasses with side shields.
Indirect vented goggles.

Applicable Norms/Standards
Use eye protection conforming to EN 16321

Skin/hand protection
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.
Gloves made from the following material(s) are recommended:

Material	Thickness (mm)	Breakthrough Time
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 (e.g., spraying, high splash potential, etc.), then use of a protective apron may be necessary. See recommended glove material(s) for determining appropriate apron material(s). If a glove material is not available as an apron, polymer laminate is a suitable option.

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

Half facepiece or full facepiece supplied-air respirator

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Colour	Light Straw
Odor	Pungent Petroleum
Odour threshold	*No data available.*
Melting point/freezing point	*Not applicable.*
Boiling point/boiling range	>=148.9 ºC
Flammability	Not applicable.
Flammable Limits(LEL)	*No data available.*
Flammable Limits(UEL)	*No data available.*
Flash point	>=148.9 ºC [*Test Method:*Closed Cup]
Autoignition temperature	*No data available.*
Decomposition temperature	*No data available.*
pH	*substance/mixture is non-soluble (in water)*
Kinematic Viscosity	741 mm²/sec
Water solubility	Nil
Solubility- non-water	*No data available.*
Partition coefficient: n-octanol/water	*No data available.*
Vapour pressure	*No data available.*
Density	*No data available.*
Relative density	1.08 [*Ref Std:*WATER=1]
Relative Vapour Density	*No data available.*
Particle Characteristics	*Not applicable.*

9.2. Other information

9.2.2 Other safety characteristics

Average particle size	*No data available.*
Bulk density	*No data available.*
EU Volatile Organic Compounds	*No data available.*
Evaporation rate	*No data available.*
Molecular weight	*No data available.*
Softening point	*No data available.*

SECTION 10: Stability and reactivity

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

10.2 Chemical stability
Stable.

10.3 Possibility of hazardous reactions
Hazardous polymerisation may occur.

10.4 Conditions to avoid
None known.

10.5 Incompatible materials
Strong bases.
Alcohols.
Water

10.6 Hazardous decomposition products

Substance	Condition
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

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

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Signs and Symptoms of Exposure

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

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

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

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

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

Additional Health Effects:

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

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

Toxicological Data

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

Acute Toxicity

Name	Route	Species	Value
Overall product	Inhalation-Vapour(4 hr)		No data available; calculated ATE >50 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Polyoxyalkylenes	Dermal		LD50 estimated to be > 5,000 mg/kg
Polyoxyalkylenes	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
4,4'-methylenediphenyl diisocyanate	Dermal	Rabbit	LD50 > 5,000 mg/kg
4,4'-methylenediphenyl diisocyanate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.368 mg/l
4,4'-methylenediphenyl diisocyanate	Ingestion	Rat	LD50 31,600 mg/kg
1,1'-Methylenebis[isocyanatobenzene], homopolymer	Dermal	Rabbit	LD50 > 5,000 mg/kg
1,1'-Methylenebis[isocyanatobenzene], homopolymer	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.368 mg/l
1,1'-Methylenebis[isocyanatobenzene], homopolymer	Ingestion	Rat	LD50 31,600 mg/kg
Diundecyl phthalate	Dermal	Rat	LD50 > 2,000 mg/kg
Diundecyl phthalate	Ingestion	Rat	LD50 > 15,800 mg/kg
methylenediphenyl diisocyanate	Dermal	Rabbit	LD50 > 5,000 mg/kg
methylenediphenyl diisocyanate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.368 mg/l
methylenediphenyl diisocyanate	Ingestion	Rat	LD50 31,600 mg/kg
triethyl phosphate	Dermal	Guinea pig	LD50 > 21,400 mg/kg
triethyl phosphate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 8.8 mg/l
triethyl phosphate	Ingestion	Rat	LD50 1,131 mg/kg
1,1,3-tris(3-tert-butyl-4-hydroxy-6-methylphenyl)butane	Dermal	Rat	LD50 > 2,000 mg/kg
1,1,3-tris(3-tert-butyl-4-hydroxy-6-methylphenyl)butane	Ingestion	Rat	LD50 > 5,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
4,4'-methylenediphenyl diisocyanate	official classification	Irritant
1,1'-Methylenebis[isocyanatobenzene], homopolymer	official classification	Irritant
Diundecyl phthalate	In vitro data	No significant irritation
methylenediphenyl diisocyanate	official classification	Irritant
triethyl phosphate	Rabbit	No significant irritation
1,1,3-tris(3-tert-butyl-4-hydroxy-6-methylphenyl)butane	In vitro data	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
4,4'-methylenediphenyl diisocyanate	Rabbit	Severe irritant
1,1'-Methylenebis[isocyanatobenzene], homopolymer	Rabbit	Severe irritant

Diundecyl phthalate	Rabbit	Mild irritant
methylenediphenyl diisocyanate	Rabbit	Severe irritant
triethyl phosphate	Rabbit	Severe irritant
1,1,3-tris(3-tert-butyl-4-hydroxy-6-methylphenyl)butane	In vitro data	No significant irritation

Skin Sensitisation

Name	Species	Value
4,4'-methylenediphenyl diisocyanate	Mouse	Sensitising
1,1'-Methylenebis[isocyanatobenzene], homopolymer	Mouse	Sensitising
Diundecyl phthalate	Human	Not classified
methylenediphenyl diisocyanate	Mouse	Sensitising
triethyl phosphate	Mouse	Not classified
1,1,3-tris(3-tert-butyl-4-hydroxy-6-methylphenyl)butane	Mouse	Sensitising

Respiratory Sensitisation

Name	Species	Value
4,4'-methylenediphenyl diisocyanate	Human	Sensitising
1,1'-Methylenebis[isocyanatobenzene], homopolymer	Human	Sensitising
methylenediphenyl diisocyanate	Human	Sensitising

Germ Cell Mutagenicity

Name	Route	Value
4,4'-methylenediphenyl diisocyanate	In vivo	Not mutagenic
4,4'-methylenediphenyl diisocyanate	In Vitro	Some positive data exist, but the data are not sufficient for classification
1,1'-Methylenebis[isocyanatobenzene], homopolymer	In vivo	Not mutagenic
1,1'-Methylenebis[isocyanatobenzene], homopolymer	In Vitro	Some positive data exist, but the data are not sufficient for classification
Diundecyl phthalate	In Vitro	Not mutagenic
methylenediphenyl diisocyanate	In vivo	Not mutagenic
methylenediphenyl diisocyanate	In Vitro	Some positive data exist, but the data are not sufficient for classification
1,1,3-tris(3-tert-butyl-4-hydroxy-6-methylphenyl)butane	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
4,4'-methylenediphenyl diisocyanate	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
1,1'-Methylenebis[isocyanatobenzene], homopolymer	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
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
4,4'-methylenediphenyl diisocyanate	Inhalation	Not classified for female reproduction	Rat	NOAEL 0.01 mg/l	premating into lactation
4,4'-methylenediphenyl diisocyanate	Inhalation	Not classified for male reproduction	Rat	NOAEL 0.01 mg/l	28 days
4,4'-methylenediphenyl diisocyanate	Inhalation	Not classified for development	Rat	NOAEL 0.004 mg/l	during organogenesis
1,1'-Methylenebis[isocyanatobenzene], homopolymer	Inhalation	Not classified for female reproduction	Rat	NOAEL 0.01 mg/l	premating into lactation
1,1'-Methylenebis[isocyanatobenzene], homopolymer	Inhalation	Not classified for male reproduction	Rat	NOAEL 0.01 mg/l	28 days

1,1'-Methylenebis[isocyanatobenzene], homopolymer	Inhalation	Not classified for development	Rat	NOAEL 0.004 mg/l	during organogenesis
Diundecyl phthalate	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	during gestation
Diundecyl phthalate	Ingestion	Not classified for male reproduction	Rat	LOAEL 500 mg/kg/day	28 days
methylenediphenyl diisocyanate	Inhalation	Not classified for female reproduction	Rat	NOAEL 0.01 mg/l	premating into lactation
methylenediphenyl diisocyanate	Inhalation	Not classified for male reproduction	Rat	NOAEL 0.01 mg/l	28 days
methylenediphenyl diisocyanate	Inhalation	Not classified for development	Rat	NOAEL 0.004 mg/l	during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
4,4'-methylenediphenyl diisocyanate	Inhalation	respiratory irritation	May cause respiratory irritation	official classification	NOAEL Not available	
1,1'-Methylenebis[isocyanatobenzene], homopolymer	Inhalation	respiratory irritation	May cause respiratory irritation	official classification	NOAEL Not available	
methylenediphenyl diisocyanate	Inhalation	respiratory irritation	May cause respiratory irritation	official classification	NOAEL Not available	
triethyl phosphate	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
4,4'-methylenediphenyl diisocyanate	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.004 mg/l	13 weeks
4,4'-methylenediphenyl diisocyanate	Inhalation	endocrine system | hematopoietic system | liver | nervous system | eyes	Not classified	Rat	NOAEL 0.01 mg/l	28 days
4,4'-methylenediphenyl diisocyanate	Ingestion	endocrine system | gastrointestinal tract | liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	14 days
1,1'-Methylenebis[isocyanatobenzene], homopolymer	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.004 mg/l	13 weeks
1,1'-Methylenebis[isocyanatobenzene], homopolymer	Inhalation	endocrine system | hematopoietic system | liver | nervous system | eyes	Not classified	Rat	NOAEL 0.01 mg/l	28 days
1,1'-Methylenebis[isocyanatobenzene], homopolymer	Ingestion	endocrine system | gastrointestinal tract | liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	14 days
Diundecyl phthalate	Ingestion	liver	Not classified	Rat	NOAEL 2,086 mg/kg/day	21 days
Diundecyl phthalate	Ingestion	heart | endocrine system | hematopoietic system | immune system | kidney and/or bladder | respiratory system	Not classified	Rat	NOAEL 500 mg/kg/day	28 days

methylenediphenyl diisocyanate	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.004 mg/l	13 weeks
methylenediphenyl diisocyanate	Inhalation	endocrine system | hematopoietic system | liver | nervous system | eyes	Not classified	Rat	NOAEL 0.01 mg/l	28 days
methylenediphenyl diisocyanate	Ingestion	endocrine system | gastrointestinal tract | liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	14 days
1,1,3-tris(3-tert-butyl-4-hydroxy-6-methylphenyl)butane	Ingestion	endocrine system | hematopoietic system | liver | eyes	Not classified	Rat	NOAEL 392 mg/kg/day	13 weeks

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

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

11.2. Information on other hazards

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

SECTION 12: Ecological information

The information below may not agree with the 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	Identifier(s)	Organism	Type	Exposure	Test endpoint	Test result
Polyoxyalkylenes	154517-54-1	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
4,4'-methylenediphenyl diisocyanate	101-68-8	Activated sludge	Estimated	3 hours	EC50	>100 mg/l
4,4'-methylenediphenyl diisocyanate	101-68-8	Green algae	Estimated	72 hours	EC50	>1,640 mg/l
4,4'-methylenediphenyl diisocyanate	101-68-8	Water flea	Estimated	24 hours	EC50	>1,000 mg/l
4,4'-methylenediphenyl diisocyanate	101-68-8	Zebra Fish	Estimated	96 hours	LC50	>1,000 mg/l
4,4'-methylenediphenyl diisocyanate	101-68-8	Green algae	Estimated	72 hours	NOEC	1,640 mg/l
4,4'-methylenediphenyl diisocyanate	101-68-8	Water flea	Estimated	21 days	NOEC	10 mg/l
1,1'-Methylenebis[isocyanatobenzene], homopolymer	39310-05-9	Water flea	Analogous Compound	24 hours	EC50	>100 mg/l
Diundecyl phthalate	3648-20-2	Common Carp	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
Diundecyl phthalate	3648-20-2	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
Diundecyl phthalate	3648-20-2	Sheepshead Minnow	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l

Diundecyl phthalate	3648-20-2	Water flea	Experimental	48 hours	No tox obs at lmt of water sol	>100 mg/l
Diundecyl phthalate	3648-20-2	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
Diundecyl phthalate	3648-20-2	Rainbow trout	Experimental	155 days	No tox obs at lmt of water sol	>100 mg/l
Diundecyl phthalate	3648-20-2	Water flea	Experimental	21 days	EC10	1.206 mg/l
methylenediphenyl diisocyanate	26447-40-5	Green algae	Analogous Compound	72 hours	EC50	>1,640 mg/l
methylenediphenyl diisocyanate	26447-40-5	Water flea	Analogous Compound	24 hours	EC50	>1,000 mg/l
methylenediphenyl diisocyanate	26447-40-5	Zebra Fish	Analogous Compound	96 hours	LC50	>1,000 mg/l
methylenediphenyl diisocyanate	26447-40-5	Green algae	Analogous Compound	72 hours	NOEC	1,640 mg/l
methylenediphenyl diisocyanate	26447-40-5	Water flea	Analogous Compound	21 days	NOEC	10 mg/l
methylenediphenyl diisocyanate	26447-40-5	Activated sludge	Analogous Compound	3 hours	EC50	>100 mg/l
methylenediphenyl diisocyanate	26447-40-5	Lettuce	Analogous Compound	17 days	NOEC	1,000 mg/kg (Dry Weight)
methylenediphenyl diisocyanate	26447-40-5	Redworm	Analogous Compound	14 days	LC50	>1,000 mg/kg (Dry Weight)
triethyl phosphate	78-40-0	Activated sludge	Experimental	5 hours	EC50	5,000 mg/l
triethyl phosphate	78-40-0	Bacteria	Experimental	30 minutes	EC10	2,985 mg/l
triethyl phosphate	78-40-0	Fathead minnow	Experimental	96 hours	LC50	>100 mg/l
triethyl phosphate	78-40-0	Green algae	Experimental	72 hours	EbC50	900 mg/l
triethyl phosphate	78-40-0	Water flea	Experimental	48 hours	EC50	350 mg/l
triethyl phosphate	78-40-0	Water flea	Experimental	21 days	NOEC	31.6 mg/l
1,1,3-tris(3-tert-butyl-4-hydroxy-6-methylphenyl)butane	1843-03-4	Green algae	Experimental	72 hours	ErC50	>1,000 mg/l
1,1,3-tris(3-tert-butyl-4-hydroxy-6-methylphenyl)butane	1843-03-4	Water flea	Experimental	48 hours	EC50	>1,000 mg/l
1,1,3-tris(3-tert-butyl-4-hydroxy-6-methylphenyl)butane	1843-03-4	Zebra Fish	Experimental	96 hours	LC50	>100 mg/l
1,1,3-tris(3-tert-butyl-4-hydroxy-6-methylphenyl)butane	1843-03-4	Green algae	Experimental	72 hours	ErC10	>1,000 mg/l
1,1,3-tris(3-tert-butyl-4-hydroxy-6-methylphenyl)butane	1843-03-4	Water flea	Experimental	21 days	NOEC	0.0477 mg/l
1,1,3-tris(3-tert-butyl-4-hydroxy-6-methylphenyl)butane	1843-03-4	Zebra Fish	Experimental	28 days	NOEC	0.00102 mg/l
1,1,3-tris(3-tert-butyl-4-hydroxy-6-methylphenyl)butane	1843-03-4	Activated sludge	Analogous Compound	3 hours	EC50	>1,000 mg/l

12.2. Persistence and degradability

Material	Identifier(s)	Test type	Duration	Study Type	Test result	Protocol
Polyoxyalkylenes	154517-54-1	Data not availbl-insufficient	N/A	N/A	N/A	N/A
4,4'-methylenediphenyl diisocyanate	101-68-8	Estimated Hydrolysis		Hydrolytic half-life	20 hours (t 1/2)	
1,1'-	39310-05-9	Hydrolysis product	28 days	BOD	0 %BOD/ThO	OECD 301C - MITI test (I)

Methylenebis[isocyanatobenzene], homopolymer		Biodegradation			D	
1,1'-Methylenebis[isocyanatobenzene], homopolymer	39310-05-9	Analogous Compound Hydrolysis		Hydrolytic half-life (pH 7)	<2 hours (t 1/2)	
Diundecyl phthalate	3648-20-2	Experimental Biodegradation	28 days	CO2 evolution	82.81 %CO2 evolution/THCO2 evolution (does not pass 10-day window)	OECD 301B - Modified sturm or CO2
methylenediphenyl diisocyanate	26447-40-5	Analogous Compound Biodegradation	28 days	BOD	0 %BOD/ThOD	OECD 301C - MITI test (I)
methylenediphenyl diisocyanate	26447-40-5	Analogous Compound Aquatic Inherent Biodegrad.	28 days	BOD	0 %BOD/ThOD	OECD 302C - Modified MITI (II)
methylenediphenyl diisocyanate	26447-40-5	Analogous Compound Hydrolysis		Hydrolytic half-life (pH 7)	<2 hours (t 1/2)	
triethyl phosphate	78-40-0	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	97 %removal of DOC	835.3200 Zhan-Wellens
triethyl phosphate	78-40-0	Experimental Biodegradation	28 days	BOD	0 %BOD/ThOD	OECD 301C - MITI test (I)
triethyl phosphate	78-40-0	Experimental Hydrolysis		Hydrolytic half-life (pH 7)	>1 years (t 1/2)	EC C.7 Hydrolysis at pH
1,1,3-tris(3-tert-butyl-4-hydroxy-6-methylphenyl)butane	1843-03-4	Experimental Biodegradation	28 days	CO2 evolution	12 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
1,1,3-tris(3-tert-butyl-4-hydroxy-6-methylphenyl)butane	1843-03-4	Experimental Biodegradation	98 days	CO2 evolution	<1.6 %CO2 evolution/THCO2 evolution	OECD 308 Aero Anaer Trans sed
1,1,3-tris(3-tert-butyl-4-hydroxy-6-methylphenyl)butane	1843-03-4	Experimental Biodegradation	61 days	CO2 evolution	<1 %CO2 evolution/THCO2 evolution	OECD 309 Aero Sim Biod Water
1,1,3-tris(3-tert-butyl-4-hydroxy-6-methylphenyl)butane	1843-03-4	Experimental Soil Inherent Biodegradability	120 days	CO2 evolution	3.4 %CO2 evolution/THCO2 evolution	OECD 307 Aero Anaer Trans soil

12.3 : Bioaccumulative potential

Material	Identifier(s)	Test type	Duration	Study Type	Test result	Protocol
Polyoxyalkylenes	154517-54-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
4,4'-methylenediphenyl diisocyanate	101-68-8	Experimental BCF - Fish	28 days	Bioaccumulation factor	200	OECD305-Bioconcentration
1,1'-Methylenebis[isocyanatobenzene], homopolymer	39310-05-9	Analogous Compound BCF - Fish	28 days	Bioaccumulation factor	200	
Diundecyl phthalate	3648-20-2	Experimental Bioconcentration		Log Kow	1.86	OECD 107 log Kow shke flsk mtd
methylenediphenyl diisocyanate	26447-40-5	Analogous Compound BCF - Fish	28 days	Bioaccumulation factor	200	OECD305-Bioconcentration
methylenediphenyl diisocyanate	26447-40-5	Analogous Compound Bioconcentration		Log Kow	4.51	OECD 117 log Kow HPLC method
triethyl phosphate	78-40-0	Experimental BCF - Fish	42 days	Bioaccumulation factor	<1.3	OECD305-Bioconcentration
1,1,3-tris(3-tert-butyl-4-hydroxy-6-methylphenyl)butane	1843-03-4	Experimental BCF - Fish		Bioaccumulation factor	2177	OECD305-Bioconcentration
1,1,3-tris(3-tert-butyl-4-hydroxy-6-methylphenyl)butane	1843-03-4	Experimental Bioconcentration		Log Kow	>6.5	OECD 117 log Kow HPLC method

12.4. Mobility in soil

Material	Identifier(s)	Test type	Study Type	Test result	Protocol
4,4'-methylenediphenyl diisocyanate	101-68-8	Estimated Mobility in Soil	Koc	34,000 l/kg	Episuite™
Diundecyl phthalate	3648-20-2	Modeled Mobility in Soil	Koc	66.5 l/kg	Episuite™
methylenediphenyl diisocyanate	26447-40-5	Modeled Mobility in Soil	Koc	300,000 l/kg	Episuite™
triethyl phosphate	78-40-0	Modeled Mobility in Soil	Koc	30 l/kg	Episuite™
1,1,3-tris(3-tert-butyl-4-hydroxy-6-methylphenyl)butane	1843-03-4	Experimental Mobility in Soil	Koc	33,900,000 l/kg	OECD 121 Estim. of Koc by HPLC

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. Endocrine disrupting properties

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

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

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

EU waste code (product as sold)

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

SECTION 14: Transportation information

Not hazardous for transportation.

	Ground Transport (ADR)	Air Transport (IATA)	Marine Transport (IMDG)

14.1 - UN Number or ID number	No data available.	No data available.	No data available.
14.2 UN proper shipping name	No data available.	No data available.	No data available.
14.3 Transport hazard class(es)	No data available.	No data available.	No data available.
14.4 Packing group	No data available.	No data available.	No data available.
14.5 Environmental hazards	No data available.	No data available.	No data available.
14.6 Special precautions for user	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.
14.7 Marine Transport in bulk according to IMO instruments	No data available.	No data available.	No data available.
Control Temperature	No data available.	No data available.	No data available.
Emergency Temperature	No data available.	No data available.	No data available.
ADR Classification Code	No data available.	No data available.	No data available.
IMDG Segregation Code	No data available.	No data available.	No data available.

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

SECTION 15: Regulatory information

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

Carcinogenicity

Ingredient	Identifier(s)	Classification	Regulation
methylenediphenyl diisocyanate	26447-40-5	Carc. 2	Regulation (EC) No. 1272/2008, Table 3.1
methylenediphenyl diisocyanate	26447-40-5	Gr. 3: Not classifiable	International Agency for Research on Cancer
1,1'-Methylenebis[isocyanatobenzene], homopolymer	39310-05-9	Carc. 2	3M classified according to Regulation (EC) No 1272/2008
4,4'-methylenediphenyl diisocyanate	101-68-8	Carc. 2	Regulation (EC) No. 1272/2008, Table 3.1
4,4'-methylenediphenyl diisocyanate	101-68-8	Gr. 3: Not classifiable	International Agency

for Research on Cancer

Restrictions on the manufacture, placing on the market and use:
The following substance(s) contained in this product is/are subject through Annex XVII of REACH regulation to restrictions on the manufacture, placing on the market and use when present in certain dangerous substances, mixtures and articles. Users of this product are required to comply with the restrictions placed upon it by the aforementioned provision.

Ingredient	Identifier(s)
4,4'-methylenediphenyl diisocyanate	101-68-8

Restriction status: listed in REACH Annex XVII
Restricted uses: See Annex XVII to Regulation (EC) No 1907/2006 for Conditions of Restriction

Global inventory status
Contact 3M for more information. The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

DIRECTIVE 2012/18/EU
Seveso hazard categories, Annex 1, Part 1

Hazard Categories	Qualifying quantity (tonnes) for the application of	
	Lower-tier requirements	Upper-tier requirements
E2 Hazardous to the Aquatic environment	200	500

Seveso named dangerous substances, Annex 1, Part 2
None

Regulation (EU) No 649/2012
No chemicals listed

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

H302	Harmful if swallowed.
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.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure: respiratory system.
H410	Very toxic to aquatic life with long lasting effects.

H411	Toxic to aquatic life with long lasting effects.

List of Relevant Notas

Nota 2	The concentration of isocyanate stated is the percentage by weight of the free monomer calculated with reference to the total weight of the mixture.
Nota C	Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

Revision information:
EU Section 14 - Table Data information was added.
EU Section 14 - Table Headers information was added.
Label: CLP Classification information was modified.
Label: CLP Environmental Hazard Statements information was added.
Label: CLP Percent Unknown information was added.
Label: CLP Precautionary - Prevention information was modified.
Label: CLP Precautionary - Response information was modified.
Label: Graphic information was modified.
Section 3: Composition/ Information of ingredients table information was modified.
Section 8: Occupational exposure limit table information was modified.
Section 9: Vapour pressure value information was added.
Section 9: Vapour pressure value information was deleted.
Section 11: Acute Toxicity table information was modified.
Section 11: Germ Cell Mutagenicity Table information was modified.
Section 11: Reproductive Toxicity Table information was modified.
Section 11: Serious Eye Damage/Irritation Table information was modified.
Section 11: Skin Corrosion/Irritation Table information was modified.
Section 11: Skin Sensitization Table information was modified.
Section 11: Target Organs - Repeated Table information was modified.
Section 12: Component ecotoxicity information information was modified.
Section 12: Mobility in soil information information was modified.
Section 12: Persistence and Degradability information information was modified.
Section 12:Bioccumulative potential information information was modified.
Section 14 Classification Code – Main Heading information was deleted.
Section 14 Classification Code – Regulation Data information was deleted.
Section 14 Control Temperature – Main Heading information was deleted.
Section 14 Control Temperature – Regulation Data information was deleted.
Section 14 Emergency Temperature – Main Heading information was deleted.
Section 14 Emergency Temperature – Regulation Data information was deleted.
Section 14 Hazard Class + Sub Risk – Main Heading information was deleted.
Section 14 Hazard Class + Sub Risk – Regulation Data information was deleted.
Section 14 Other Dangerous Goods – Main Heading information was deleted.
Section 14 Other Dangerous Goods – Regulation Data information was deleted.
Section 14 Packing Group – Main Heading information was deleted.
Section 14 Packing Group – Regulation Data information was deleted.
Section 14 Proper Shipping Name information was deleted.
Section 14 Regulations – Main Headings information was deleted.
Section 14 Segregation – Regulation Data information was deleted.
Section 14 Segregation Code – Main Heading information was deleted.
Section 14 Special Precautions – Main Heading information was deleted.
Section 14 Special Precautions – Regulation Data information was deleted.
Section 14 Transport in bulk – Regulation Data information was deleted.
Section 14 Marine transport in bulk according to IMO instruments – Main Heading information was deleted.
Section 14 UN Number Column data information was deleted.
Section 14 UN Number information was deleted.

Section 15: Seveso Hazard Category Text information was added.
Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material. information was 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. 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.

3M Ireland MSDSs are available at www.3M.com

Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the REACH Regulation (1907/2006) as amended by Regulation (EU) 2020/878

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

1.1. Product identifier
3M Scotchcast™ Flame Retardant Resin 2131 (Part B)

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

Identified uses
Electrical

1.3. Details of the supplier of the safety data sheet

Address:	3M Ireland Limited, 70 SIR JOHN ROGERSON'S QUAY, D02R296 DUBLIN 2
Telephone:	+353 1 280 3555
E Mail:	ner-productstewardship@mmm.com
Website:	www.3M.com

1.4. Emergency telephone number
Emergency medical information: 8am-10pm (seven days) contact National Poisons Information Centre, Beaumont Hospital, Dublin 9 DOV2NO, Ireland. Telephone Number: +353 (0)1 809 2166

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture
CLP REGULATION (EC) No 1272/2008

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

CLASSIFICATION:
Serious Eye Damage/Eye Irritation, Category 1 - Eye Dam. 1; H318
Hazardous to the Aquatic Environment (Chronic), Category 3 - Aquatic Chronic 3; H412
Very Persistent, Very Bioaccumulative – vPvB; EUH441

For full text of H phrases, see Section 16.

2.2. Label elements

CLP REGULATION (EC) No 1272/2008

SIGNAL WORD
DANGER.

Symbols
GHS05 (Corrosion) |

Pictograms



Ingredients:

Ingredient	Identifier(s)	EC No.	% by Wt
1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	84852-53-9	284-366-9	20 - 30
1,1'-Phenyliminodipropan-2-ol	3077-13-2	221-360-7	3 - 7

HAZARD STATEMENTS:

H318	Causes serious eye damage.
H412	Harmful to aquatic life with long lasting effects.
EUH441	Strongly accumulates in the environment and living organisms including in humans.

PRECAUTIONARY STATEMENTS

Prevention:

P201	Obtain special instructions before use.
P273	Avoid release to the environment.
P280A	Wear eye/face protection.

Response:

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTRE or doctor/physician.
P391	Collect spillage.

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

<=125 ml Hazard statements

H318	Causes serious eye damage.
H412	Harmful to aquatic life with long lasting effects.
EUH441	Strongly accumulates in the environment and living organisms including in humans.

<=125 ml Precautionary statements

Prevention:

P201	Obtain special instructions before use.
P273	Avoid release to the environment.
P280A	Wear eye/face protection.

Response:

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTRE or doctor/physician.

Contains 6% of components with unknown hazards to the aquatic environment.

2.3. Other hazards

Contains a substance that meets the criteria for vPvB according to Regulation (EC) No 1907/2006, Annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures

Ingredient	Identifier(s)	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Homopolymer	(CAS-No.) 69102-90-5	20 - 30	Substance not classified as hazardous
1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	(CAS-No.) 84852-53-9 (EC-No.) 284-366-9	20 - 30	vPvB , EUH441
Diundecyl phthalate	(CAS-No.) 3648-20-2 (EC-No.) 222-884-9	10 - 15	Substance not classified as hazardous
Propane-1,2-diol, propoxylated	(CAS-No.) 25322-69-4	5 - 10	Acute Tox. 4, H302
Diantimony pentoxide	(CAS-No.) 1314-60-9 (EC-No.) 215-237-7	5 - 10	Aquatic Chronic 2, H411
Castor oil	(CAS-No.) 8001-79-4 (EC-No.) 232-293-8	1 - 10	Substance not classified as hazardous
1,1'-Phenyliminodipropan-2-ol	(CAS-No.) 3077-13-2 (EC-No.) 221-360-7	3 - 7	Eye Dam. 1, H318
Oxydipropanol	(CAS-No.) 25265-71-8 (EC-No.) 246-770-3 (REACH-No.) 01-2119456811-38	3 - 6	Substance not classified as hazardous
Carbon black	(CAS-No.) 1333-86-4	1 - 5	Substance with a national occupational exposure limit

	(EC-No.) 215-609-9		
Silicon dioxide	(CAS-No.) 7631-86-9 (EC-No.) 231-545-4	1 - 3	Substance with a national occupational exposure limit
Aluminium Oxide (non-fibrous)	(CAS-No.) 1344-28-1 (EC-No.) 215-691-6	1 - 3	Substance with a national occupational exposure limit
Water	(CAS-No.) 7732-18-5 (EC-No.) 231-791-2	0.5 - 2	Substance not classified as hazardous
Disodium oxide	(CAS-No.) 1313-59-3 (EC-No.) 215-208-9	< 1	EUH014 Acute Tox. 3, H301 Skin Corr. 1B, H314 STOT SE 3, H335

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
If exposed, wash with soap and water. 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
The most important symptoms and effects based on the CLP classification include:
Serious damage to the eyes (corneal cloudiness, severe pain, tearing, ulcerations, and significantly impaired or loss of vision).

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

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

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products

Substance	Condition
Carbon monoxide	During combustion.
Carbon dioxide.	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. Use personal protective equipment based on the results of an exposure assessment. Refer to Section 8 for PPE recommendations. If anticipated exposure resulting from an accidental release exceeds the protective capabilities of the PPE listed in Section 8, or are unknown, select PPE that offers an appropriate level of protection. Consider the physical and chemical hazards of the material when doing so. Examples of PPE ensembles for emergency response could include wearing bunker gear for a release of flammable material; wearing chemical protective clothing if the spilled material is a corrosive, a sensitizer, a significant dermal irritant, or can be absorbed through the skin; or donning a positive pressure supplied-air respirator for chemicals with inhalation hazards. For information regarding physical and health hazards, refer to sections 2 and 11 of the SDS.

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

6.3. Methods and material for containment and cleaning up
Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a 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
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. Avoid release to the environment.

7.2. Conditions for safe storage including any incompatibilities
Keep container tightly closed. Keep cool. Store away from heat. Store in a dry place.

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	Identifier(s)	Agency	Limit type	Additional comments
Carbon black	1333-86-4	Ireland OELs	TWA(inhalable fraction)(8 hours):3 mg/m3	
Aluminium Oxide (non-fibrous)	1344-28-1	Ireland OELs	TWA(Total inhalable dust)(8 hours):10 mg/m3;TWA(as respirable dust)(8 hours):4 mg/m3	
Silicon dioxide	7631-86-9	Ireland OELs	TWA(Total inhalable dust)(8 hours):6 mg/m3;TWA(as respirable dust)(8 hours):2.4 mg/m3	

Ireland OELs : Ireland. OELs
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 Indust. Inspect./Ministry (IE)

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:
Full face shield.
Indirect vented goggles.

Applicable Norms/Standards
Use eye/face protection conforming to EN 16321

Skin/hand protection
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.
Gloves made from the following material(s) are recommended:

Material	Thickness (mm)	Breakthrough Time
Polymer laminate	No data available	No data available

Applicable Norms/Standards
Use gloves tested to EN 374

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapours and particulates

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

Applicable Norms/Standards
Use a respirator conforming to EN 140 or EN 136: filter types A & P

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Colour	Black
Odor	Pungent Glycol
Odour threshold	*No data available.*
Melting point/freezing point	*Not applicable.*
Boiling point/boiling range	> 143.3 ºC
Flammability	Not applicable.
Flammable Limits(LEL)	*No data available.*
Flammable Limits(UEL)	*No data available.*
Flash point	> 143.3 ºC [*Test Method:*Closed Cup]
Autoignition temperature	*No data available.*
Decomposition temperature	*No data available.*
pH	*substance/mixture is non-soluble (in water)*
Kinematic Viscosity	4,264 mm²/sec
Water solubility	Nil
Solubility- non-water	*No data available.*
Partition coefficient: n-octanol/water	*No data available.*
Vapour pressure	< 186,158.4 Pa [@ 55 ºC]
Density	*No data available.*
Relative density	1.29 [*Ref Std:*WATER=1]
Relative Vapour Density	*No data available.*
Particle Characteristics	*Not applicable.*

9.2. Other information

9.2.2 Other safety characteristics

EU Volatile Organic Compounds	*No data available.*
Evaporation rate	*No data available.*
Molecular weight	*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
None known.

10.5 Incompatible materials
None known.

10.6 Hazardous decomposition products

Substance	Condition
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

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

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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.

Skin contact
Contact with the skin during product use is not expected to result in significant irritation.

Eye contact
Corrosive (eye burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

Ingestion
May be harmful if swallowed.
Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea.

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 >2,000 - =5,000 mg/kg
Homopolymer	Dermal		LD50 estimated to be > 5,000 mg/kg

Homopolymer	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	Dermal	Rabbit	LC50 > 2,000 mg/kg
1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	Ingestion	Rat	LD50 > 5,000 mg/kg
Diundecyl phthalate	Dermal	Rat	LD50 > 2,000 mg/kg
Diundecyl phthalate	Ingestion	Rat	LD50 > 15,800 mg/kg
Propane-1,2-diol, propoxylated	Dermal	Rabbit	LD50 > 10,000 mg/kg
Propane-1,2-diol, propoxylated	Ingestion	Rat	LD50 > 1,000 mg/kg
Diantimony pentoxide	Ingestion	Rat	LD50 > 2,000 mg/kg
Diantimony pentoxide	Inhalation-Dust/Mist (4 hours)	similar compounds	LC50 > 5.4 mg/l
Diantimony pentoxide	Dermal	similar health hazards	LD50 estimated to be > 5,000 mg/kg
1,1'-Phenyliminodipropan-2-ol	Dermal	Rabbit	LD50 > 2,000 mg/kg
1,1'-Phenyliminodipropan-2-ol	Ingestion	Rat	LD50 3,800 mg/kg
Oxydipropanol	Dermal	Rabbit	LD50 > 5,010 mg/kg
Oxydipropanol	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 2.34 mg/l
Oxydipropanol	Ingestion	Rat	LD50 > 5,010 mg/kg
Castor oil	Dermal		LD50 estimated to be > 5,000
Castor oil	Ingestion		LD50 estimated to be > 5,000
Carbon black	Dermal	Rabbit	LD50 > 3,000 mg/kg
Carbon black	Ingestion	Rat	LD50 > 8,000 mg/kg
Silicon dioxide	Dermal	Rabbit	LD50 > 5,000 mg/kg
Silicon dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Silicon dioxide	Ingestion	Rat	LD50 > 5,110 mg/kg
Aluminium Oxide (non-fibrous)	Dermal		LD50 estimated to be > 5,000 mg/kg
Aluminium Oxide (non-fibrous)	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 2.3 mg/l
Aluminium Oxide (non-fibrous)	Ingestion	Rat	LD50 > 5,000 mg/kg
Disodium oxide	Ingestion	Professional judgement	LD50 estimated to be 50 - 300 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	Rabbit	No significant irritation
Diundecyl phthalate	In vitro data	No significant irritation
Propane-1,2-diol, propoxylated	Not available	No significant irritation
Diantimony pentoxide	Rabbit	No significant irritation
1,1'-Phenyliminodipropan-2-ol	Professional judgement	Minimal irritation
Oxydipropanol	Rabbit	No significant irritation
Castor oil	Human	Minimal irritation
Carbon black	Rabbit	No significant irritation
Silicon dioxide	Rabbit	No significant irritation
Aluminium Oxide (non-fibrous)	Rabbit	No significant irritation
Disodium oxide	similar compounds	Corrosive

Serious Eye Damage/Irritation

Name	Species	Value
1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	Rabbit	No significant irritation
Diundecyl phthalate	Rabbit	Mild irritant
Propane-1,2-diol, propoxylated	Not available	Mild irritant
Diantimony pentoxide	similar compounds	Mild irritant
1,1'-Phenyliminodipropan-2-ol	Professional judgement	Corrosive
Oxydipropanol	Rabbit	No significant irritation
Castor oil	Rabbit	Mild irritant
Carbon black	Rabbit	No significant irritation
Silicon dioxide	Rabbit	No significant irritation
Aluminium Oxide (non-fibrous)	Rabbit	No significant irritation
Disodium oxide	similar compounds	Corrosive

Skin Sensitisation

Name	Species	Value
1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	Guinea pig	Not classified
Diundecyl phthalate	Human	Not classified
Propane-1,2-diol, propoxylated	Human and animal	Not classified
Diantimony pentoxide	Mouse	Not classified
Oxydipropanol	Guinea pig	Not classified
Castor oil	Human	Not classified
Silicon dioxide	Human and animal	Not classified

Respiratory Sensitisation

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

Germ Cell Mutagenicity

Name	Route	Value
1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	In Vitro	Not mutagenic
Diundecyl phthalate	In Vitro	Not mutagenic
Propane-1,2-diol, propoxylated	In Vitro	Not mutagenic
Diantimony pentoxide	In Vitro	Not mutagenic
Oxydipropanol	In Vitro	Not mutagenic
Oxydipropanol	In vivo	Not mutagenic
Castor oil	In Vitro	Not mutagenic
Castor oil	In vivo	Not mutagenic
Carbon black	In Vitro	Not mutagenic
Carbon black	In vivo	Some positive data exist, but the data are not sufficient for classification
Silicon dioxide	In Vitro	Not mutagenic
Aluminium Oxide (non-fibrous)	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Oxydipropanol	Ingestion	Multiple	Not carcinogenic

		animal species	
Carbon black	Dermal	Mouse	Not carcinogenic
Carbon black	Ingestion	Mouse	Not carcinogenic
Carbon black	Inhalation	Rat	Carcinogenic.
Silicon dioxide	Not specified.	Mouse	Some positive data exist, but the data are not sufficient for classification
Aluminium Oxide (non-fibrous)	Inhalation	Rat	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	1 generation
1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	1 generation
1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	Ingestion	Not classified for development	Multiple animal species	NOAEL 1,250 mg/kg/day	during organogenesis
Diundecyl phthalate	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	during gestation
Diundecyl phthalate	Ingestion	Not classified for male reproduction	Rat	LOAEL 500 mg/kg/day	28 days
Oxydipropanol	Ingestion	Not classified for development	Rat	NOAEL 5,000 mg/kg/day	during organogenesis
Silicon dioxide	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Silicon dioxide	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Silicon dioxide	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Disodium oxide	Inhalation	respiratory irritation	May cause respiratory irritation	Professional judgement	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	Ingestion	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days
1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	Ingestion	heart | endocrine system | immune system	Not classified	Rat	NOAEL 1,250 mg/kg/day	28 days
1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	Ingestion	hematopoietic system | nervous system | eyes | kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days
Diundecyl phthalate	Ingestion	liver	Not classified	Rat	NOAEL 2,086	21 days

					mg/kg/day	
Diundecyl phthalate	Ingestion	heart | endocrine system | hematopoietic system | immune system | kidney and/or bladder | respiratory system	Not classified	Rat	NOAEL 500 mg/kg/day	28 days
Oxydipropanol	Ingestion	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 470 mg/kg/day	105 weeks
Oxydipropanol	Ingestion	heart | endocrine system | liver	Not classified	Rat	NOAEL 3,040 mg/kg/day	105 weeks
Oxydipropanol	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 115 mg/kg/day	105 weeks
Oxydipropanol	Ingestion	skin | gastrointestinal tract | bone, teeth, nails, and/or hair | hematopoietic system | immune system | nervous system | vascular system	Not classified	Rat	NOAEL 3,040 mg/kg/day	105 weeks
Castor oil	Ingestion	heart | hematopoietic system | liver	Not classified	Rat	NOAEL 4,800 mg/kg/day	13 weeks
Castor oil	Ingestion	kidney and/or bladder	Not classified	Mouse	NOAEL 13,000 mg/kg/day	13 weeks
Carbon black	Inhalation	pneumoconiosis	Not classified	Human	NOAEL Not available	occupational exposure
Silicon dioxide	Inhalation	respiratory system | silicosis	Not classified	Human	NOAEL Not available	occupational exposure
Aluminium Oxide (non-fibrous)	Inhalation	pneumoconiosis	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Aluminium Oxide (non-fibrous)	Inhalation	pulmonary fibrosis	Not classified	Human	NOAEL Not available	occupational exposure

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

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

11.2. Information on other hazards

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

SECTION 12: Ecological information

The information below may not agree with the 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	Identifier(s)	Organism	Type	Exposure	Test endpoint	Test result

1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	84852-53-9	Green algae	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	84852-53-9	Rainbow trout	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	84852-53-9	Water flea	Experimental	48 hours	No tox obs at lmt of water sol	>100 mg/l
1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	84852-53-9	Green algae	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	84852-53-9	Midge	Experimental	28 days	NOEC	5,000 mg/kg (Dry Weight)
1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	84852-53-9	Water flea	Experimental	21 days	No tox obs at lmt of water sol	>100 mg/l
1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	84852-53-9	Activated sludge	Experimental	3 hours	NOEC	10 mg/l
1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	84852-53-9	Bobwhite quail	Experimental	140 days	NOEL	88.1 mg per kg of bodyweight
1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	84852-53-9	Onion	Experimental	21 days	NOEC	1,968.22 mg/kg (Dry Weight)
1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	84852-53-9	Redworm	Experimental	56 days	NOEC	649.9 mg/kg (Dry Weight)
1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	84852-53-9	Soil microbes	Experimental	28 days	NOEC	2,500 mg/kg (Dry Weight)
Homopolymer	69102-90-5	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Diundecyl phthalate	3648-20-2	Common Carp	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
Diundecyl phthalate	3648-20-2	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
Diundecyl phthalate	3648-20-2	Sheepshead Minnow	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
Diundecyl phthalate	3648-20-2	Water flea	Experimental	48 hours	No tox obs at lmt of water sol	>100 mg/l
Diundecyl phthalate	3648-20-2	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
Diundecyl phthalate	3648-20-2	Rainbow trout	Experimental	155 days	No tox obs at lmt of water sol	>100 mg/l
Diundecyl phthalate	3648-20-2	Water flea	Experimental	21 days	EC10	1.206 mg/l
Diantimony pentoxide	1314-60-9	Green algae	Endpoint not reached	72 hours	ErC50	>100 mg/l
Diantimony pentoxide	1314-60-9	Fathead minnow	Estimated	96 hours	LC50	19.1 mg/l
Diantimony pentoxide	1314-60-9	Fish	Estimated	96 hours	LC50	9.2 mg/l
Diantimony pentoxide	1314-60-9	Invertebrate	Estimated	96 hours	LC50	2.35 mg/l
Diantimony pentoxide	1314-60-9	Blackworm	Estimated	28 days	NOEC	149 mg/kg (Dry Weight)
Diantimony pentoxide	1314-60-9	Green algae	Estimated	72 hours	NOEC	2.8 mg/l
Diantimony pentoxide	1314-60-9	Rainbow trout	Estimated	28 days	LC10	0.209 mg/l
Diantimony pentoxide	1314-60-9	Water flea	Estimated	21 days	NOEC	2.31 mg/l

Diantimony pentoxide	1314-60-9	Activated sludge	Estimated	4 hours	EC50	36 mg/l
Castor oil	8001-79-4	Zebra Fish	Analogous Compound	96 hours	LC50	>100 mg/l
Castor oil	8001-79-4	Bacteria	Analogous Compound	16 hours	NOEC	10,000 mg/l
Propane-1,2-diol, propoxylated	25322-69-4	Green algae	Analogous Compound	72 hours	ErC50	>100 mg/l
Propane-1,2-diol, propoxylated	25322-69-4	Water flea	Analogous Compound	48 hours	EC50	105.8 mg/l
Propane-1,2-diol, propoxylated	25322-69-4	Zebra Fish	Analogous Compound	96 hours	LC50	>100 mg/l
Propane-1,2-diol, propoxylated	25322-69-4	Green algae	Analogous Compound	72 hours	NOEC	100 mg/l
Propane-1,2-diol, propoxylated	25322-69-4	Water flea	Analogous Compound	21 days	NOEC	>=10 mg/l
Propane-1,2-diol, propoxylated	25322-69-4	Activated sludge	Analogous Compound	3 hours	EC50	>1,000 mg/l
1,1'-Phenyliminodipropan-2-ol	3077-13-2	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Oxydipropanol	25265-71-8	Goldfish	Experimental	96 hours	LC50	>5,000 mg/l
Oxydipropanol	25265-71-8	Green algae	Experimental	72 hours	EC50	>100 mg/l
Oxydipropanol	25265-71-8	Water flea	Experimental	48 hours	EC50	>100 mg/l
Oxydipropanol	25265-71-8	Green algae	Experimental	72 hours	NOEC	100 mg/l
Oxydipropanol	25265-71-8	Bacteria	Experimental	18 hours	EC10	1,000 mg/l
Oxydipropanol	25265-71-8	Bobwhite quail	Experimental	14 days	LD50	>2,000 mg per kg of bodyweight
Carbon black	1333-86-4	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
Carbon black	1333-86-4	Zebra Fish	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
Carbon black	1333-86-4	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	100 mg/l
Carbon black	1333-86-4	Activated sludge	Experimental	3 hours	NOEC	>800 mg/l
Aluminium Oxide (non-fibrous)	1344-28-1	N/A	Experimental	96 hours	LC50	>100 mg/l
Aluminium Oxide (non-fibrous)	1344-28-1	Green algae	Experimental	72 hours	EC50	>100 mg/l
Aluminium Oxide (non-fibrous)	1344-28-1	Water flea	Experimental	48 hours	LC50	>100 mg/l
Aluminium Oxide (non-fibrous)	1344-28-1	Green algae	Experimental	72 hours	NOEC	>100 mg/l
Silicon dioxide	7631-86-9	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Disodium oxide	1313-59-3	N/A	Data not available or insufficient for classification	N/A	N/A	N/A

12.2. Persistence and degradability

Material	Identifier(s)	Test type	Duration	Study Type	Test result	Protocol
1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	84852-53-9	Experimental Biodegradation	28 days	BOD	0 %BOD/ThOD	OECD 301C - MITI test (I)
1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	84852-53-9	Experimental Biodegradation	63 days	CO2 evolution	0 %CO2 evolution/THCO2 evolution	OECD 314 Simu Biodeg WW
1,1'-(Ethane-1,2-	84852-53-9	Experimental		Half-life (t 1/2)	>6 months (t	

diyl)bis[pentabromobenzene]		Biodegradation			1/2)	
Homopolymer	69102-90-5	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Diundecyl phthalate	3648-20-2	Experimental Biodegradation	28 days	CO2 evolution	82.81 %CO2 evolution/THCO2 evolution (does not pass 10-day window)	OECD 301B - Modified sturm or CO2
Diantimony pentoxide	1314-60-9	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Castor oil	8001-79-4	Analogous Compound Biodegradation	28 days	BOD	64 %BOD/ThOD	OECD 301D - Closed bottle test
Propane-1,2-diol, propoxylated	25322-69-4	Data not availbl-insufficient	N/A	N/A	N/A	N/A
1,1'-Phenyliminodipropan-2-ol	3077-13-2	Modeled Biodegradation	28 days	BOD	6 %BOD/ThOD	Catalogic™
Oxydipropanol	25265-71-8	Experimental Biodegradation	28 days	BOD	84.4 %BOD/ThOD	OECD 301F - Manometric respirometry
Oxydipropanol	25265-71-8	Experimental Aquatic Inherent Biodegrad.	42 days	Dissolv. Organic Carbon Deplet	83.6 %removal of DOC	OECD 302A - Modified SCAS Test
Oxydipropanol	25265-71-8	Experimental Biodegradation	64 days	Dissolv. Organic Carbon Deplet	23.6 %removal of DOC	OECD 306(Misc)-Biodegrad. Seaw
Carbon black	1333-86-4	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Aluminium Oxide (non-fibrous)	1344-28-1	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Silicon dioxide	7631-86-9	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Disodium oxide	1313-59-3	Data not availbl-insufficient	N/A	N/A	N/A	N/A

12.3 : Bioaccumulative potential

Material	Identifier(s)	Test type	Duration	Study Type	Test result	Protocol
Homopolymer	69102-90-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Diundecyl phthalate	3648-20-2	Experimental Bioconcentration		Log Kow	1.86	OECD 107 log Kow shke flsk mtd
Diantimony pentoxide	1314-60-9	Analogous Compound BCF - Fish	23 days	Bioaccumulation factor	<=28.6	
Castor oil	8001-79-4	Modeled Bioconcentration		Bioaccumulation factor	7	Catalogic™
Propane-1,2-diol, propoxylated	25322-69-4	Analogous Compound Bioconcentration		Log Kow	≤1.13	EC A.8 Partition Coefficient
1,1'-Phenyliminodipropan-2-ol	3077-13-2	Modeled Bioconcentration		Bioaccumulation factor	2.8	Catalogic™
Oxydipropanol	25265-71-8	Experimental BCF - Fish	42 days	Bioaccumulation factor	4.6	OECD305-Bioconcentration
Oxydipropanol	25265-71-8	Experimental Bioconcentration		Log Kow	-0.462	EC A.8 Partition Coefficient
Carbon black	1333-86-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Aluminium Oxide (non-fibrous)	1344-28-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Silicon dioxide	7631-86-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

Disodium oxide	1313-59-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

12.4. Mobility in soil

Material	Identifier(s)	Test type	Study Type	Test result	Protocol
1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	84852-53-9	Experimental Mobility in Soil	Koc	1,290 l/kg	OECD 106 Adsp-Desb Batch Equil
Diundecyl phthalate	3648-20-2	Modeled Mobility in Soil	Koc	66.5 l/kg	Episuite™
Castor oil	8001-79-4	Modeled Mobility in Soil	Koc	10,000,000,000 l/kg	Episuite™
Propane-1,2-diol, propoxylated	25322-69-4	Analogous Compound Mobility in Soil	Koc	<17.8 l/kg	OECD 121 Estim. of Koc by HPLC
1,1'-Phenyliminodipropan-2-ol	3077-13-2	Modeled Mobility in Soil	Koc	150 l/kg	ACD/Labs ChemSketch™
Oxydipropanol	25265-71-8	Modeled Mobility in Soil	Koc	1 l/kg	Episuite™

12.5. Results of the PBT and vPvB assessment

Ingredient	Identifier(s)	PBT/vPvB status
1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	84852-53-9	Meets REACH vPvB criteria

12.6. Endocrine disrupting properties

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

12.7. 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. 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

Not hazardous for transportation.

	Ground Transport (ADR)	Air Transport (IATA)	Marine Transport (IMDG)
14.1 - UN Number or ID number	No data available.	No data available.	No data available.
14.2 UN proper shipping name	No data available.	No data available.	No data available.
14.3 Transport hazard class(es)	No data available.	No data available.	No data available.
14.4 Packing group	No data available.	No data available.	No data available.
14.5 Environmental hazards	No data available.	No data available.	No data available.
14.6 Special precautions for user	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.
14.7 Marine Transport in bulk according to IMO instruments	No data available.	No data available.	No data available.
Control Temperature	No data available.	No data available.	No data available.
Emergency Temperature	No data available.	No data available.	No data available.
ADR Classification Code	No data available.	No data available.	No data available.
IMDG Segregation Code	No data available.	No data available.	No data available.

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

SECTION 15: Regulatory information

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

Carcinogenicity

Ingredient	Identifier(s)	Classification	Regulation
Carbon black	1333-86-4	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Silicon dioxide	7631-86-9	Gr. 3: Not classifiable	International Agency for Research on Cancer

Authorization status under REACH:
The following substance/s contained in this product might be or is/are subject to authorization in accordance with REACH:

Ingredient	Identifier(s)
1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	84852-53-9

Authorization status: listed in the Candidate List of Substances of Very High Concern for Authorization

Global inventory status
Contact 3M for more information. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

DIRECTIVE 2012/18/EU
Seveso hazard categories, Annex 1, Part 1
None

Seveso named dangerous substances, Annex 1, Part 2
None

Regulation (EU) No 649/2012
No chemicals listed

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

EUH014	Reacts violently with water.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Revision information:
EU Section 14 - Table Data information was added.
EU Section 14 - Table Headers information was added.
Section 2: <125ml Hazard - Environmental information was modified.
Section 2: <125ml Precautionary - Prevention information was modified.
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 Precautionary - Prevention information was modified.
Label: CLP Precautionary - Response information was modified.
Label: Graphic information was modified.
Section 2: Other hazards phrase information was modified.

Section 3: Composition/ Information of ingredients table information was modified.
Section 4: First aid for skin contact information information was modified.
Section 5: Hazardous combustion products table information was modified.
Section 7: Precautions safe handling information information was modified.
Section 8: Appropriate Engineering controls information information was modified.
Section 8: glove data value information was added.
Section 8: Occupational exposure limit table information was modified.
Section 8: Personal Protection - Skin/hand information information was modified.
Section 8: Skin protection - recommended gloves text information was added.
Section 9: Vapour pressure value information was added.
Section 9: Vapour pressure value information was deleted.
Section 11: Acute Toxicity table information was modified.
Section 11: Cancer Hazards information information was deleted.
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: Prolonged or repeated exposure may cause standard phrases information was deleted.
Section 11: Reproductive Toxicity Table information was modified.
Section 11: Serious Eye Damage/Irritation Table information was modified.
Section 11: Skin Corrosion/Irritation Table information was modified.
Section 11: Skin Sensitization Table information was modified.
Section 11: Specific Target Organ Toxicity - single exposure text information was deleted.
Section 11: Target Organs - Repeated Table information was modified.
Section 11: Target Organs - Single Table information was added.
Section 12: Component ecotoxicity information information was modified.
Section 12: Mobility in soil information information was modified.
Section 12: No PBT/vPvB information available warning information was deleted.
Section 12: PBT/vPvB table row information was added.
Section 12: Persistence and Degradability information information was modified.
Section 12:Bioccumulative potential information information was modified.
Section 13: Standard Phrase Category Waste GHS information was modified.
Section 14 Classification Code – Main Heading information was deleted.
Section 14 Classification Code – Regulation Data information was deleted.
Section 14 Control Temperature – Main Heading information was deleted.
Section 14 Control Temperature – Regulation Data information was deleted.
Section 14 Emergency Temperature – Main Heading information was deleted.
Section 14 Emergency Temperature – Regulation Data information was deleted.
Section 14 Hazard Class + Sub Risk – Main Heading information was deleted.
Section 14 Hazard Class + Sub Risk – Regulation Data information was deleted.
Section 14 Other Dangerous Goods – Main Heading information was deleted.
Section 14 Other Dangerous Goods – Regulation Data information was deleted.
Section 14 Packing Group – Main Heading information was deleted.
Section 14 Packing Group – Regulation Data information was deleted.
Section 14 Proper Shipping Name information was deleted.
Section 14 Regulations – Main Headings information was deleted.
Section 14 Segregation – Regulation Data information was deleted.
Section 14 Segregation Code – Main Heading information was deleted.
Section 14 Special Precautions – Main Heading information was deleted.
Section 14 Special Precautions – Regulation Data information was deleted.
Section 14 Transport in bulk – Regulation Data information was deleted.
Section 14 Marine transport in bulk according to IMO instruments – Main Heading information was deleted.
Section 14 UN Number Column data information was deleted.
Section 14 UN Number information was deleted.
Section 15: Carcinogenicity information information was modified.
Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material. information was modified.

Section 2: No PBT/vPvB information available warning information was deleted.

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