

Safety Data Sheet

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Revision date:	07/12/2022	Supersedes date:	11/10/2017	
Transportation version number:				

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

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

1.1. Product identifier

3M Surface Pre-Treatment AC-131 BB

Product Identification Numbers				
70-0052-2110-9	70-0052-2112-5	70-0052-2114-1		
7000048293	7000048295	7000048297		

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

Identified uses

Metal Adhesion Promoter

1.3. Details of the supplier of the safety data sheet

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

Website: www.3M.com/uk

1.4. Emergency telephone number +44 (0)1344 858 000

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:

30-2023-7, 30-3792-6

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:

Serious Eye Damage/Eye Irritation, Category 1 - Eye Dam. 1; H318 Hazardous to the Aquatic Environment (Chronic), Category 3 - Aquatic Chronic 3; H412

For full text of H phrases, see Section 16.

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

SIGNAL WORD DANGER.

Symbols GHS05 (Corrosion) |

Pictograms



Contains:
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane

HAZARD STATEMENTS:	
H318	Causes serious eye damage.
H412	Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention: 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.
For containers not exceeding 12	25 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.

<=125 ml Precautionary statements

Prevention: P280A

Wear eye/face protection.

present and easy to do. Continue rinsing.

Immediately call a POISON CENTRE or doctor/physician.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

Response:

P305 + P351 + P338

P310

Revision information:

Kit Information: CLP Target Organ Hazard Statement information was deleted.

Label: CLP Ingredients - kit components information was added.

Section 2: <125ml Hazard - Environmental information was added.

Label: CLP Classification information was modified.

Label: CLP Environmental Hazard Statements information was added.

Label: CLP Precautionary - Prevention information was modified.

Label: Graphic information was modified.



Safety Data Sheet

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Document group:	30-2023-7	Version number:	5.03
Revision date:	30/05/2023	Supersedes date:	26/05/2023

This Safety Data Sheet has been prepared in accordance with the REACH Regulation (1907/2006), as amended for GB.

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

1.1. Product identifier

3M Surface Pre-Treatment AC-131 BB Part A

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

Identified uses Part A of Metal Adhesion Promoter

1.3. Details of the supplier of the safety data sheet

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

1.4. Emergency telephone number

+44 (0)1344 858 000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

The retained CLP Regulation (EU) No 1272/2008 as amended for Great Britain

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:

This material is not classified as hazardous according to Regulation (EC) No. 1272/2008, as amended for Great Britain, on classification, labelling, and packaging of substances and mixtures.

2.2. Label elements

The retained CLP Regulation (EU) No 1272/2008 as amended for Great Britain Not applicable

Ingredient	CAS Nbr	EC No.	% by Wt
Water	7732-18-5	231-791-2	98 - 99

2.3. Other hazards

None known.

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], as amended for GB
Water	(CAS-No.) 7732-18-5 (EC-No.) 231-791-2	98 - 99	Substance not classified as hazardous

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

No need for first aid is anticipated. If symptoms develop, remove the affected person to fresh air. Get medical attention.

Skin contact

If exposed, wash with soap and water. If signs/symptoms develop, get medical attention.

Eye contact

If exposed, flush eyes with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms develop, get medical attention.

If swallowed

Do not induce vomiting. Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

No critical symptoms or effects. See Section 11.1, information on toxicological effects.

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

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products

Substance Carbon monoxide Carbon dioxide. <u>Condition</u> During combustion. 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

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. Observe precautions from other sections.

6.2. Environmental precautions

Avoid release to the environment.

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. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with water. 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 release to the environment.

7.2. Conditions for safe storage including any incompatibilities

No special storage requirements.

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

No occupational exposure limit values exist for any of the components listed in Section 3 of this Safety Data Sheet.

Biological limit values

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

8.2. Exposure controls

8.2.1. Engineering controls

No engineering controls required.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

None required.

Skin/hand protection

No chemical protective gloves are required.

Respiratory protection

None required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

. Information on basic physical and ch
Physical state
Colour
Odor
Odour threshold
Melting point/freezing point
Boiling point/boiling range
Flammability (solid, gas)
Flammable Limits(LEL)
Flammable Limits(UEL)
Flash point
Autoignition temperature
Decomposition temperature
рН
Kinematic Viscosity
Water solubility
Solubility- non-water
Partition coefficient: n-octanol/water
Vapour pressure
Relative density
Relative Vapour Density
- •

Liquid. Blue Vinegar No data available. No data available. No data available. Not applicable. No data available. No data available. >=93.3 °C [*Test Method*:Closed Cup] Not applicable. No data available. 3.5 - 4 10 mm²/sec Complete No data available. No data available. No data available. 1 [*Ref Std*:WATER=1] No data available.

9.2. Other information

9.2.2 Other safety characteristics
EU Volatile Organic Compounds
Evaporation rate
Molecular weight
Percent volatile

No data available. No data available. Not applicable. 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

<u>Substance</u>

None known.

<u>Condition</u>

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

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

11.1. Information on hazard classes as defined in the retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain.

Signs and Symptoms of Exposure

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

Inhalation

No health effects are expected.

Skin contact

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

Eye contact

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

Ingestion

No known health effects.

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	Ingestion		No data available; calculated ATE >5,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

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

Serious Eye Damage/Irritation

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

Skin Sensitisation

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

Respiratory Sensitisation

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

Germ Cell Mutagenicity

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

Carcinogenicity

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

Reproductive Toxicity

Reproductive and/or Developmental Effects

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

Target Organ(s)

Specific Target Organ Toxicity - single exposure

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

Specific Target Organ Toxicity - repeated exposure

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

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 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.

12.2. Persistence and degradability

No test data available.

12.3 : Bioaccumulative potential No test data available.

12.4. Mobility in soil No test data available.

12.5. Results of the PBT and vPvB assessment

This material does not contain any substances that are assessed to be a PBT or vPvB

12.6. Other adverse effects

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

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

Prior to disposal, consult all applicable authorities and regulations to insure proper classification. Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Empty and clean product containers may be disposed as non-hazardous waste. Consult your specific regulations and service providers to determine available options and requirements.

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 10 Waste adhesives and sealants other than those mentioned in 08 04 09

SECTION 14: Transportation information

Not hazardous for transportation.

	Ground Transport (ADR)	Air Transport (IATA)	Marine Transport (IMDG)
14.1 UN 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 Transport in bulk according to Annex II of Marpol 73/78 and IBC Code	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

Global inventory status

Contact 3M for more information. The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional 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.

COMAH Regulation, SI 2015/483

Seveso hazard categories, Annex 1, Part 1 None

Seveso named dangerous substances, Annex 1, Part 2 None

Regulation (EU) No 649/2012, as amended for GB

No chemicals listed

15.2. Chemical Safety Assessment

A chemical safety assessment has not been carried out for this substance/mixture in accordance with Regulation (EC) No 1907/2006, as amended for GB.

SECTION 16: Other information

Revision information:

GB Section 02: CLP Ingredient table information was added.
Section 3: Composition/ Information of ingredients table information was modified.
Section 03: SCL table information was deleted.
Section 8: Occupational exposure limit table information was deleted.
Section 8: Occupational exposure limit table information was modified.
OEL Reg Agency Desc information was deleted.
Section 8: STEL key information was deleted.

Section 8: TWA key information was deleted. Section 11: Acute Toxicity table information was modified. Section 11: Carcinogenicity Table information was deleted. Section 11: Carcinogenicity text information was added. Section 11: Germ Cell Mutagenicity Table information was deleted. Section 11: Germ Cell Mutagenicity text information was added. Section 11: Reproductive Toxicity Table information was deleted. Section 11: Respiratory Sensitization Table information was deleted. Section 11: Respiratory Sensitization text information was added. Section 11: Serious Eye Damage/Irritation Table information was deleted. Section 11: Serious Eye Damage/Irritation text information was added. Section 11: Skin Corrosion/Irritation Table information was deleted. Section 11: Skin Corrosion/Irritation text information was added. Section 11: Skin Sensitization Table information was deleted. Section 11: Skin Sensitization text information was added. Section 11: Specific Target Organ Toxicity - repeated exposure text information was added. Section 11: Specific Target Organ Toxicity - single exposure text information was added. Section 11: Target Organs - Repeated Table information was deleted. Section 11: Target Organs - Single Table information was deleted. Section 12: Component ecotoxicity information information was deleted. Section 12: Mobility in soil information information was deleted. Prints No Data if Bioccumulative potential information is not present information was added. Section 12: No Data text for mobility in soil information was added. Prints No Data if Persistence and Degradability information is not present information was added. Section 12: Persistence and Degradability information information was deleted. Section 12:Bioccumulative potential information information was deleted. Section 15: Seveso Substance Text information was deleted.

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

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3M SDSs for Great Britain are available at www.3M.com/uk

For Northern Ireland documents, please contact your 3M representative to obtain a copy.



Safety Data Sheet

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Document group:	30-3792-6	Version number:	11.03
Revision date:	02/02/2023	Supersedes date:	14/06/2021

This Safety Data Sheet has been prepared in accordance with the REACH Regulation (1907/2006), as amended for GB.

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

1.1. Product identifier

3M Surface Pre-Treatment AC-131 BB Part B

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

Identified uses Part B of Metal Adhesion Promoter

1.3. Details of the supplier of the safety data sheet

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

1.4. Emergency telephone number +44 (0)1344 858 000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

The retained CLP Regulation (EU) No 1272/2008 as amended for Great Britain

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

For full text of H phrases, see Section 16.

2.2. Label elements

The retained CLP Regulation (EU) No 1272/2008 as amended for Great Britain

SIGNAL WORD

DANGER.

Symbols GHS05 (Corrosion) |

Pictograms

•				
Ingredient		CAS Nbr	EC No.	% by Wt
[3-(2,3-epoxypropoxy)propyl]trim	ethoxysilane	2530-83-8	219-784-2	99 - 100
HAZARD STATEMENTS: H318	Causes serious eye damage.			
11310	Causes serious eye damage.			
H412	Harmful to aquatic life with l	long lasting effects.		
PRECAUTIONARY STATEMEN	NTS			
Prevention: 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.			
For containers not exceeding 125	ml the following Hazard and	Precautionary stat	ements may be u	ised:
<=125 ml Hazard statements H318	Causes serious eye damage.			
H412	Harmful to aquatic life with long lasting effects.			
<=125 ml Precautionary statemen	its			
Prevention: P280A	Wear eye/face protection.			
Response: P305 + P351 + P338	IF IN EYES: Rinse cautio	2	several minutes.	Remove contact lenses, if
P310	present and easy to do. Co Immediately call a POISON		r/physician.	
2.3. Other hazards				

None known. 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

Ingredient	Identifier(s)	Classification according to Regulation (EC) No. 1272/2008 [CLP], as amended for GB
[3-(2,3-	(CAS-No.) 2530-83-8	Eye Dam. 1, H318
epoxypropoxy)propyl]trimethoxysilane	(EC-No.) 219-784-2	Aquatic Chronic 3, H412

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

3.2. Mixtures

Not applicable

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

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 GB 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

<u>Substance</u> Carbon monoxide Carbon dioxide. <u>Condition</u> During combustion. During combustion.

5.3. Advice for fire-fighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with water. 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. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.)

7.2. Conditions for safe storage including any incompatibilities

Store away from heat. Store away from oxidising agents. Store away from amines.

7.3. Specific end use(s)

See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

No occupational exposure limit values exist for any of the components listed in Section 3 of this Safety Data Sheet.

Biological limit values

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

8.2. Exposure controls

8.2.1. Engineering controls

No engineering controls required.

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 166

Skin/hand protection

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

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

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 type A

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state
Colour
Odor
Odour threshold
Melting point/freezing point
Boiling point/boiling range
Flammability (solid, gas)
Flammable Limits(LEL)
Flammable Limits(UEL)
Flash point
Autoignition temperature
Decomposition temperature
рН
Kinematic Viscosity

Liquid. Colourless Slight Odor *No data available.* 120 °C [@ 266.644 Pa] Not applicable. *No data available.* 135 °C [*Test Method*:Closed Cup] 231 °C *No data available.* 3.5 [*Test Method*:Estimated] *No data available.* Water solubility Solubility- non-water Partition coefficient: n-octanol/water Vapour pressure Density Relative density Relative Vapour Density

9.2. Other information

9.2.2 Other safety characteristics
EU Volatile Organic Compounds
Evaporation rate
Molecular weight
Percent volatile

Complete [*Details:*Reacts with water.] *No data available. No data available.* 266.6 Pa [@ 120 °C] 1.07 g/ml 1.07 [*Ref Std:*WATER=1] 8.1 [@ 20 °C] [*Ref Std:*AIR=1]

No data available. No data available. No data available. 0 % weight

SECTION 10: Stability and reactivity

10.1 Reactivity

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

10.2 Chemical stability

Stable.

10.3 Possibility of hazardous reactions Hazardous polymerisation will not occur.

10.4 Conditions to avoid Heat.

10.5 Incompatible materials Strong oxidising agents. Amines.

10.6 Hazardous decomposition products

<u>Substance</u>

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

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

11.1. Information on hazard classes as defined in the retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain.

Signs and Symptoms of Exposure

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

Inhalation

Condition

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May be harmful if inhaled. Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Skin contact

May be harmful in contact with skin. Mild Skin Irritation: Signs/symptoms may include localised redness, swelling, itching, and dryness.

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

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
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	Dermal	Rabbit	LD50 4,000 mg/kg
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 5.3 mg/l
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	Ingestion	Rat	LD50 7,010 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	Rabbit	Mild irritant

Serious Eye Damage/Irritation

Name	Species	Value
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	Rabbit	Corrosive

Skin Sensitisation

Name	Species	Value
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	Guinea pig	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
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	In vivo	Not mutagenic
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	Dermal	Mouse	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
[3-(2,3- epoxypropoxy)propyl]trimethoxysilane	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	1 generation
[3-(2,3- epoxypropoxy)propyl]trimethoxysilane	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	1 generation
[3-(2,3- epoxypropoxy)propyl]trimethoxysilane	Ingestion	Not classified for development	Rat	NOAEL 3,000 mg/kg/day	during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

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

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
[3-(2,3- epoxypropoxy)propyl]trim ethoxysilane	Ingestion	heart endocrine system bone, teeth, nails, and/or hair hematopoietic system liver immune system nervous system kidney and/or bladder respiratory system	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days

Specific Target Organ Toxicity - repeated 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 material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

12.1. Toxicity

No product test data available.

Material	CAS #	Organism	Туре	Exposure	Test endpoint	Test result
[3-(2,3-	2530-83-8	Common Carp	Experimental	96 hours	LC50	55 mg/l
epoxypropoxy)prop						
yl]trimethoxysilane						
[3-(2,3-	2530-83-8	Green algae	Experimental	96 hours	ErC50	350 mg/l
epoxypropoxy)prop						

yl]trimethoxysilane					
[3-(2,3- epoxypropoxy)prop yl]trimethoxysilane	Invertebrate	Experimental	48 hours	LC50	324 mg/l
[3-(2,3- epoxypropoxy)prop yl]trimethoxysilane	Green algae	Experimental	96 hours	NOEC	130 mg/l
[3-(2,3- epoxypropoxy)prop yl]trimethoxysilane	Water flea	Experimental	21 days	NOEC	100 mg/l
[3-(2,3- epoxypropoxy)prop yl]trimethoxysilane	Activated sludge	Experimental	3 hours	EC50	>100 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
[3-(2,3- epoxypropoxy)prop yl]trimethoxysilane		Experimental Biodegradation	28 days		37 %removal of DOC	EC C.4.A. DOC Die-Away Test
[3-(2,3- epoxypropoxy)prop yl]trimethoxysilane		Experimental Hydrolysis		Hydrolytic half-life (pH 7)	6.5 hours (t 1/2)	OECD 111 Hydrolysis func of pH

12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
[3-(2,3- epoxypropoxy)prop yl]trimethoxysilane		Experimental Bioconcentration		Log Kow	0.5	Episuite™

12.4. Mobility in soil

Material	Cas No.	Test type	Study Type	Test result	Protocol
[3-(2,3- epoxypropoxy)prop yl]trimethoxysilane		Modeled Mobility in Soil	Кос	10 l/kg	Episuite™

12.5. Results of the PBT and vPvB assessment

This material does not contain any substances that are assessed to be a PBT or vPvB

12.6. Other adverse effects

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

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)

070104* Other organic solvents, washing liquids and mother liquors

SECTION 14: Transportation information

Not hazardous for transportation.

	Ground Transport (ADR)	Air Transport (IATA)	Marine Transport (IMDG)
14.1 UN 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 Transport in bulk according to Annex II of Marpol 73/78 and IBC Code	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

Global inventory status

Contact 3M for more information. The components of this material are in compliance with the provisions of the Korea

Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional 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. The components of this product the selling division for additional information. The components of CEPA. 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.

COMAH Regulation, SI 2015/483

Seveso hazard categories, Annex 1, Part 1 None

Seveso named dangerous substances, Annex 1, Part 2 None

Regulation (EU) No 649/2012, as amended for GB

No chemicals listed

15.2. Chemical Safety Assessment

A chemical safety assessment has not been carried out for this substance/mixture in accordance with Regulation (EC) No 1907/2006, as amended for GB.

SECTION 16: Other information

List of relevant H statements

H318	Causes serious eye damage.
H412	Harmful to aquatic life with long lasting effects.

Revision information:

GB Section 02: CLP Ingredient table information was added. GB Section 02: Other hazards phrase information was added.

GB Section 04: First Aid - Symptoms and Effects (GB CLP) information was added.

GB Section 04: Information on toxicological effects information was added.

GB Section 12: Classification Warning information was added.

GB Section 15: Chemical Safety Assessment information was added.

GBSDS Section 14 Transport in bulk - Main Heading information was added.

GBSDS Section 14 UN Number information was added.

Section 2: <125ml Hazard - Environmental information was added.

CLP: Ingredient table information was deleted.

Label: CLP Classification information was modified.

Label: CLP Environmental Hazard Statements information was added.

Label: CLP Target Organ Hazard Statement information was deleted.

Label: Graphic information was modified.

Section 2: Other hazards phrase information was deleted.

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

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

Section 03: Mixture not applicable information was added.

Section 03: SCL table information was deleted.

Section 03: Substance not applicable information was deleted.

Section 4: First Aid - notes to physician (REACH/GHS) information was modified.

Section 04: Information on toxicological effects information was deleted. 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 deleted. Section 8: glove data value information was modified. Section 8: Occupational exposure limit table information was deleted. Section 8: Occupational exposure limit table information was modified. OEL Reg Agency Desc information was deleted. Section 8: Respiratory protection - recommended respirators information information was modified. Section 8: STEL key information was deleted. Section 8: TWA key information was deleted. Section 9: Property description for optional properties information was modified. Section 9: Vapour density value information was modified. Section 11: Acute Toxicity table information was modified. Section 11: Carcinogenicity Table information was modified. Section 11: Classification disclaimer information was deleted. Section 11: GB Classification disclaimer information was added. Section 11: GB No endocrine disruptor information available warning information was added. Section 11: Germ Cell Mutagenicity Table information was modified. Section 11: Health Effects - Ingestion information information was modified. Section 11: Health Effects - Inhalation information information was modified. Section 11: Health Effects - Skin information information was modified. Section 11: No endocrine disruptor information available warning information was deleted. Section 11: Reproductive Toxicity Table information was modified. Section 11: Reproductive/developmental effects information information was deleted. Section 11: Serious Eye Damage/Irritation Table information was modified. Section 11: Single exposure may cause standard phrases information was deleted. 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 added. Section 11: Target Organs - Repeated Table information was added. Section 11: Target Organs - Repeated Table information was deleted. Section 11: Target Organs - Single Table information was deleted. Section 12: 12.6. Endocrine Disrupting Properties information was deleted. Section 12: 12.6. Other adverse effects information was added. Section 12: 12.7. Other adverse effects information was deleted. Section 12: Classification Warning information was deleted. Section 12: Component ecotoxicity information information was modified. Section 12: Mobility in soil information information was modified. Prints No Data if Adverse effects information is not present information was deleted. Section 12: No endocrine disruptor information available warning information was added. Section 12: No endocrine disruptor information available warning information was deleted. Section 12: Persistence and Degradability information information was modified. Section 12:Bioccumulative potential information information was modified. Section 14 Multiplier - Main Heading information was deleted. Section 14 Multiplier – Regulation Data information was deleted. Section 14 Transport Category - Main Heading information was deleted. Section 14 Transport Category - Regulation Data information was deleted. Section 14 Marine transport in bulk according to IMO instruments - Main Heading information was deleted. Section 14 Transport Not Permitted – Main Heading information was deleted. Section 14 Transport Not Permitted – Regulation Data information was deleted. Section 14 Tunnel Code – Main Heading information was deleted. Section 14 Tunnel Code – Regulation Data information was deleted. Section 14 UN Number information was deleted. Section 15: Chemical Safety Assessment information was deleted.

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

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

Section 16: Web address information was added.

Section 16: Web address information was deleted.

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

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 SDSs for Great Britain are available at www.3M.com/uk

For Northern Ireland documents, please contact your 3M representative to obtain a copy.