



Safety Data Sheet

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Revision date:	11/10/2017	Supersedes date:	22/05/2015
Transportation version number:	1.00 (08/10/2012)		

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 858 000
E 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

70-0052-2110-9, 70-0052-2112-5, 70-0052-2114-1

Not hazardous for transportation

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
Specific Target Organ Toxicity-Single Exposure, Category 2 - STOT SE 2; H371

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) | GHS08 (Health Hazard) |

Pictograms



HAZARD STATEMENTS:

H318 Causes serious eye damage.

H371 May cause damage to organs:
sensory organs |

PRECAUTIONARY STATEMENTS

Prevention:

P260E Do not breathe vapour or spray.
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 statements may be used:

<=125 ml Hazard statements

H318 Causes serious eye damage.

<=125 ml 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.

Revision information:

Label: CLP Percent Unknown - Kit information was deleted.

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

Kit: Component document group number(s) information was modified.

Section 01: SAP Material Numbers information was added.

Section 2: H phrase reference information was added.

Label: CLP Classification information was added.

Label: Graphic Text information was deleted.

Label: Graphic information was deleted.

Section 2: Risk phrase information information was deleted.

Safety phrase information was deleted.



Safety Data Sheet

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Document group:	30-2023-7	Version number:	5.01
Revision date:	16/07/2021	Supersedes date:	06/10/2017

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

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

1.1. Product identifier

3M 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 858 000
E Mail: tox.uk@mmm.com
Website: www.3M.com/uk

1.4. Emergency telephone number

+44 (0)1344 858 000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

CLP REGULATION (EC) No 1272/2008

CLASSIFICATION:

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

2.2. Label elements

CLP REGULATION (EC) No 1272/2008

Not applicable

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients**3.1. Substances**

Ingredient	Identifier(s)	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Water	(CAS-No.) 7732-18-5 (EC-No.) 231-791-2	98 - 99	Substance not classified as hazardous
Zirconium tetrapropanolate	(CAS-No.) 23519-77-9 (EC-No.) 245-711-9	< 1	Substance with a national occupational exposure limit
acetic acid	(CAS-No.) 64-19-7 (EC-No.) 200-580-7	< 0.5	Flam. Liq. 3, H226 Skin Corr. 1A, H314 Eye Dam. 1, H318 Nota B
propan-1-ol	(CAS-No.) 71-23-8 (EC-No.) 200-746-9 (REACH-No.) 01-2119486761-29	< 0.5	Flam. Liq. 2, H225 Eye Dam. 1, H318 STOT SE 3, H336

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
acetic acid	(CAS-No.) 64-19-7 (EC-No.) 200-580-7	(C >= 90%) Skin Corr. 1A, H314 (25% =< C < 90%) Skin Corr. 1B, H314 (10% =< C < 25%) Skin Irrit. 2, H315 (C >= 25%) Eye Dam. 1, H318 (10% =< C < 25%) Eye Irrit. 2, H319

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**

No need for first aid is anticipated.

Skin contact

No need for first aid is anticipated.

Eye contact

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

If swallowed

No need for first aid is anticipated.

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.

Condition

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.

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

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Carbonic Acid, Zirconium Complex	23519-77-9	UK HSC	TWA(as Zr):5 mg/m ³ ;STEL(as Zr):10 mg/m ³	
acetic acid	64-19-7	UK HSC	TWA:25 mg/m ³ (10 ppm);STEL:50 mg/m ³ (20 ppm)	
propan-1-ol	71-23-8	UK HSC	TWA:500 mg/m ³ (200 ppm);STEL:625 mg/m ³ (250 ppm)	SKIN

UK HSC : UK Health and Safety Commission

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

Biological limit values

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

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

8.2. Exposure controls

8.2.1. Engineering controls

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

8.2.2. Personal protective equipment (PPE)

Eye/face protection

None required.

Skin/hand protection

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

Physical state	Liquid.
Colour	Blue
Odor	Vinegar
Odour threshold	No data available.
Melting point/freezing point	No data available.
Boiling point/boiling range	No data available.
Flammability (solid, gas)	Not applicable.
Flammable Limits(LEL)	No data available.
Flammable Limits(UEL)	No data available.

Flash point	≥ 93.3 °C [<i>Test Method</i> :Closed Cup]
Autoignition temperature	<i>Not applicable.</i>
Decomposition temperature	<i>No data available.</i>
pH	3.5 - 4
Kinematic Viscosity	10 mm ² /sec
Water solubility	Complete
Solubility- non-water	<i>No data available.</i>
Partition coefficient: n-octanol/water	<i>No data available.</i>
Vapour pressure	<i>No data available.</i>
Relative density	1 [<i>Ref Std</i> :WATER=1]
Relative Vapor Density	<i>No data available.</i>

9.2. Other information

9.2.2 Other safety characteristics

EU Volatile Organic Compounds	<i>No data available.</i>
Evaporation rate	<i>No data available.</i>
Molecular weight	<i>Not applicable.</i>
Percent volatile	<i>No data available.</i>

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>	<u>Condition</u>
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

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

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
acetic acid	Dermal	Rabbit	LD50 1,060 mg/kg
acetic acid	Inhalation-Vapour (4 hours)	Rat	LC50 11.4 mg/l
acetic acid	Ingestion	Rat	LD50 3,310 mg/kg
propan-1-ol	Dermal	Rabbit	LD50 4,000 mg/kg
propan-1-ol	Inhalation-Vapour (4 hours)	Rat	LC50 > 34 mg/l
propan-1-ol	Ingestion	Rat	LD50 estimated to be 2,000 - 5,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
acetic acid	Rabbit	Corrosive
propan-1-ol	Rabbit	Minimal irritation

Serious Eye Damage/Irritation

Name	Species	Value
Zirconium tetrapropanolate	Professional judgement	Mild irritant
acetic acid	Rabbit	Corrosive
propan-1-ol	Rabbit	Severe irritant

Skin Sensitisation

Name	Species	Value
propan-1-ol	Guinea pig	Not classified

Respiratory Sensitisation

Name	Species	Value
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acetic acid	Human	Not classified
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Germ Cell Mutagenicity

Name	Route	Value
acetic acid	In Vitro	Not mutagenic
propan-1-ol	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
acetic acid	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
acetic acid	Ingestion	Rat	Some positive data exist, but the data are not sufficient for classification
propan-1-ol	Ingestion	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
acetic acid	Ingestion	Not classified for development	Rat	NOAEL 80 mg/kg/day	during gestation
propan-1-ol	Inhalation	Not classified for male reproduction	Rat	NOAEL 8.6 mg/l	6 weeks
propan-1-ol	Inhalation	Not classified for development	Rat	NOAEL 8.6 mg/l	during gestation

Target Organ(s)**Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Zirconium tetrapropanolate	Inhalation	respiratory irritation	Not classified		NOAEL Not available	
acetic acid	Inhalation	respiratory system	Causes damage to organs	Human	NOAEL Not available	not applicable
acetic acid	Inhalation	respiratory irritation	May cause respiratory irritation	Human	NOAEL Not available	occupational exposure
acetic acid	Ingestion	blood kidney and/or bladder	Causes damage to organs	Human	NOAEL Not available	not applicable
propan-1-ol	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Mouse	NOAEL 5 mg/l	4 hours
propan-1-ol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL Not available	
propan-1-ol	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
propan-1-ol	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 70 mg/kg/day	83 weeks
propan-1-ol	Ingestion	liver	Not classified	Rat	LOAEL 70 mg/kg/day	83 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	CAS #	Organism	Type	Exposure	Test endpoint	Test result
Zirconium tetrapropanolate	23519-77-9	Activated sludge	Estimated	12 hours	EC50	9,600 mg/l
Zirconium tetrapropanolate	23519-77-9	Fathead minnow	Estimated	96 hours	LC50	4,480 mg/l
Zirconium tetrapropanolate	23519-77-9	Water flea	Estimated	48 hours	EC50	3,644 mg/l
Zirconium tetrapropanolate	23519-77-9	Water flea	Estimated	48 hours	No tox obs at lmt of water sol	>100 mg/l
Zirconium tetrapropanolate	23519-77-9	Zebra Fish	Estimated	96 hours	No tox obs at lmt of water sol	>100 mg/l
Zirconium tetrapropanolate	23519-77-9	Green Algae	Estimated	48 hours	NOEC	1,150 mg/l
Zirconium tetrapropanolate	23519-77-9	Water flea	Estimated	21 days	NOEC	>100 mg/l
acetic acid	64-19-7	Diatom	Estimated	72 hours	EC50	>306 mg/l
acetic acid	64-19-7	Bacteria	Experimental	16 hours	NOEC	2,850 mg/l
acetic acid	64-19-7	Bacteria	Experimental	30 minutes	NOEC	700 mg/l
acetic acid	64-19-7	Water flea	Experimental	24 hours	EC50	6,000 mg/l
acetic acid	64-19-7	Western Mosquitofish	Experimental	96 hours	LC50	251 mg/l
acetic acid	64-19-7	Diatom	Estimated	72 hours	NOEC	306 mg/l
acetic acid	64-19-7	Fish	Experimental	90 days	NOEL	1.26 mg/l
acetic acid	64-19-7	Water flea	Experimental	21 days	NOEC	31.4 mg/l
propan-1-ol	71-23-8	Activated sludge	Experimental	3 hours	IC50	>1,000 mg/l
propan-1-ol	71-23-8	Algae other	Experimental	96 hours	EC50	4,480 mg/l
propan-1-ol	71-23-8	Fathead minnow	Experimental	96 hours	LC50	4,555 mg/l
propan-1-ol	71-23-8	Fish	Experimental	96 hours	LC50	3,000 mg/l
propan-1-ol	71-23-8	Water flea	Experimental	48 hours	EC50	3,642 mg/l

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propan-1-ol	71-23-8	Water flea	Experimental	21 days	NOEC	100 mg/l
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12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Zirconium tetrapropanolate	23519-77-9	Data not availbl-insufficient			N/A	
acetic acid	64-19-7	Experimental Biodegradation	14 days	BOD	74 % BOD/ThBOD	OECD 301C - MITI test (I)
propan-1-ol	71-23-8	Experimental Biodegradation	20 days	BOD	73 % BOD/ThBOD	OECD 301D - Closed bottle test

12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
Zirconium tetrapropanolate	23519-77-9	Estimated Bioconcentration		Log Kow	0.34	Non-standard method
acetic acid	64-19-7	Experimental Bioconcentration		Log Kow	-0.17	Non-standard method
propan-1-ol	71-23-8	Experimental Bioconcentration		Log Kow	0.2	Non-standard method

12.4. Mobility in soil

Material	Cas No.	Test type	Study Type	Test result	Protocol
acetic acid	64-19-7	Estimated Mobility in Soil	Koc	≤3 l/kg	ACD/Labs ChemSketch™

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.

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. Proper destruction may require the use of additional fuel during incineration processes. 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.

ADR/IMDG/IATA: Not restricted for transport.

	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 Tunnel Code	No data available.	Not applicable.	No data available.
ADR Classification Code	No data available.	No data available.	No data available.
ADR Transport Category	No data available.	No data available.	No data available.
ADR Multiplier	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 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.

15.2. Chemical Safety Assessment

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

SECTION 16: Other information

List of relevant H statements

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H336	May cause drowsiness or dizziness.

Revision information:

EU Section 09: pH information information was added.
Section 02: CLP Classification Statements information was added.
Label: CLP Classification information was deleted.
Section 03: Composition table % Column heading information was added.
Section 3: Composition/ Information of ingredients table information was modified.
Section 03: Mixture not applicable information was added.
Section 03: SCL table information was added.
Section 04: Information on toxicological effects information was modified.
Section 5: Hazardous combustion products table information was modified.
Section 8: Occupational exposure limit table information was modified.
Section 09: Color information was added.
Section 9: Evaporation Rate information information was deleted.
Section 9: Explosive properties information information was deleted.
Section 09: Kinematic Viscosity information information was added.
Section 9: Melting point information information was modified.
Section 09: Odor information was added.

Sections 3 and 9: Odour, colour, grade information information was deleted.
Section 9: Oxidising properties information information was deleted.
Section 9: pH information information was deleted.
Section 9: Property description for optional properties information was modified.
Section 9: Vapour density value information was added.
Section 9: Vapour density value information was deleted.
Section 9: Viscosity information information was deleted.
Section 11: Acute Toxicity table information was modified.
Section 11: Carcinogenicity Table information was modified.
Section 11: Classification disclaimer information was modified.
Section 11: Germ Cell Mutagenicity Table information was modified.
Section 11: No endocrine disruptor information available warning information was added.
Section 11: Reproductive and/or Developmental Effects text information was deleted.
Section 11: Reproductive Toxicity Table information was modified.
Section 11: Respiratory Sensitization Table information was modified.
Section 11: Serious Eye Damage/Irritation Table information was modified.
Section 11: Skin Corrosion/Irritation Table information was modified.
Section 11: Skin Sensitization Table information was modified.
Section 11: Target Organs - Repeated Table information was modified.
Section 11: Target Organs - Single Table information was modified.
Section 12: 12.6. Endocrine Disrupting Properties information was added.
Section 12: 12.7. Other adverse effects information was modified.
Section 12: Component ecotoxicity information information was modified.
Section 12: Contact manufacturer for more detail. information was deleted.
Section 12: Mobility in soil information information was added.
Section 12: No endocrine disruptor information available warning information was added.
Section 12: No PBT/vPvB information available warning information was modified.
Section 12: Persistence and Degradability information information was modified.
Section 12: Biocumulative potential information information was modified.
Section 13: 13.1. Waste disposal note information was modified.
Section 13: Standard Phrase Category Waste GHS information was modified.
Section 14 Classification Code – Main Heading information was added.
Section 14 Classification Code – Regulation Data information was added.
Section 14 Control Temperature – Main Heading information was added.
Section 14 Control Temperature – Regulation Data information was added.
Section 14 Disclaimer Information information was added.
Section 14 Emergency Temperature – Main Heading information was added.
Section 14 Emergency Temperature – Regulation Data information was added.
Section 14 Hazard Class + Sub Risk – Main Heading information was added.
Section 14 Hazard Class + Sub Risk – Regulation Data information was added.
Section 14 Hazardous/Not Hazardous for Transportation information was added.
Section 14 Multiplier – Main Heading information was added.
Section 14 Multiplier – Regulation Data information was added.
Section 14 Other Dangerous Goods – Main Heading information was added.
Section 14 Other Dangerous Goods – Regulation Data information was added.
Section 14 Packing Group – Main Heading information was added.
Section 14 Packing Group – Regulation Data information was added.
Section 14 Proper Shipping Name information was added.
Section 14 Regulations – Main Headings information was added.
Section 14 Segregation – Regulation Data information was added.
Section 14 Segregation Code – Main Heading information was added.
Section 14 Special Precautions – Main Heading information was added.
Section 14 Special Precautions – Regulation Data information was added.
Section 14 Transport Category – Main Heading information was added.
Section 14 Transport Category – Regulation Data information was added.
Section 14 Transport in bulk – Regulation Data information was added.

Section 14 Transport in bulk according to Annex II of Marpol and the IBC Code – Main Heading information was added.

Section 14 Tunnel Code – Main Heading information was added.

Section 14 Tunnel Code – Regulation Data information was added.

Section 14 UN Number Column data information was added.

Section 14 UN Number information was added.

Section 15: Chemical Safety Assessment information was modified.

Section 15: Regulations - Inventories information was modified.

Section 16: UK disclaimer information was deleted.

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications. In addition, this SDS is being provided to convey health and safety information. If you are the importer of record of this product into the European Union, you are responsible for all regulatory requirements, including, but not limited to, product registrations/notifications, substance volume tracking, and potential substance registration.

3M United Kingdom MSDSs are available at www.3M.com/uk



Safety Data Sheet

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

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

1.1. Product identifier

3M 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 858 000
E Mail: tox.uk@mmm.com
Website: www.3M.com/uk

1.4. Emergency telephone number

+44 (0)1344 858 000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

CLP REGULATION (EC) No 1272/2008

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
Specific Target Organ Toxicity-Single Exposure, Category 2 - STOT SE 2; H371

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) |GHS08 (Health Hazard) |

Pictograms**Ingredients:**

Ingredient	CAS Nbr	EC No.	% by Wt
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	2530-83-8	219-784-2	97 - 100
methanol	67-56-1	200-659-6	0 - 3

HAZARD STATEMENTS:

H318	Causes serious eye damage.
H371	May cause damage to organs: sensory organs.

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 125 ml the following Hazard and Precautionary statements may be used:**<=125 ml Hazard statements**

H318 Causes serious eye damage.

<=125 ml 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.

2.3. Other hazards

None known.

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]
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	(CAS-No.) 2530-83-8 (EC-No.) 219-784-2	97 - 100	Eye Dam. 1, H318
methanol	(CAS-No.) 67-56-1 (EC-No.) 200-659-6 (REACH-No.) 01-2119433307-44	0 - 3	Flam. Liq. 2, H225 Acute Tox. 3, H331 Acute Tox. 3, H311 Acute Tox. 3, H301 STOT SE 1, H370

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
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	(CAS-No.) 2530-83-8 (EC-No.) 219-784-2	(C >= 5%) Eye Dam. 1, H318
methanol	(CAS-No.) 67-56-1 (EC-No.) 200-659-6 (REACH-No.) 01-2119433307-44	(C >= 10%) STOT SE 1, H370 (3% <= C < 10%) STOT SE 2, H371

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

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

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

This product contains methanol. Methanol poisoning can cause metabolic acidosis, blindness, and death. Onset of signs or symptoms may be delayed for 18 to 24 hours. If methanol poisoning is confirmed, intravenous (IV) administration of ethanol should be considered. Additional pharmacologic and supportive care should be based on the treating physician's judgement.

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>	<u>Condition</u>
formaldehyde	During combustion.
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. 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

Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (eg. gloves, respirators...) as required.

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**

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
methanol	67-56-1	UK HSC	TWA:266 mg/m ³ (200 ppm);STEL:333 mg/m ³ (250 ppm)	SKIN

UK HSC : UK Health and Safety Commission

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

Biological limit values

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

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

8.2. Exposure controls**8.2.1. Engineering controls**

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

8.2.2. Personal protective equipment (PPE)**Eye/face protection**

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	Thickness (mm)	Breakthrough Time
Butyl rubber.	0.5	=>8 hours
Polymer laminate	>0.30	=>8 hours

The glove data presented are based on the substance driving dermal toxicity and the conditions present at the time of testing. Breakthrough time may be altered when the glove is subjected to use conditions that place additional stress on the glove.

Applicable Norms/Standards

Use gloves tested to EN 374

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 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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Colour	Colourless
Odor	Slight Odor
Odour threshold	<i>No data available.</i>
Melting point/freezing point	<i>No data available.</i>
Boiling point/boiling range	120 °C [@ 266.644 Pa]
Flammability (solid, gas)	Not applicable.
Flammable Limits(LEL)	<i>No data available.</i>
Flammable Limits(UEL)	<i>No data available.</i>
Flash point	135 °C [<i>Test Method:</i> Closed Cup]
Autoignition temperature	231 °C
Decomposition temperature	<i>No data available.</i>
pH	3.5 [<i>Test Method:</i> Estimated]
Kinematic Viscosity	<i>No data available.</i>
Water solubility	Complete [<i>Details:</i> Reacts with water.]
Solubility- non-water	<i>No data available.</i>
Partition coefficient: n-octanol/water	<i>No data available.</i>
Vapour pressure	266.6 Pa [@ 120 °C]
Density	1.07 g/ml
Relative density	1.07 [<i>Ref Std:</i> WATER=1]
Relative Vapor Density	8.1 [@ 20 °C] [<i>Ref Std:</i> AIR=1]

9.2. Other information

9.2.2 Other safety characteristics

EU Volatile Organic Compounds	<i>No data available.</i>
Evaporation rate	<i>No data available.</i>
Molecular weight	<i>No data available.</i>

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>	<u>Condition</u>
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

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

Skin contact

May be harmful in contact with skin. Mild Skin Irritation: Signs/symptoms may include localised redness, swelling, itching, and dryness. May cause additional health effects (see below).

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. May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:

May cause blindness.

Reproductive/Developmental Toxicity:

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

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 2,000 - 5,000 mg/kg
Overall product	Inhalation-Vapour(4 hr)		No data available; calculated ATE >50 mg/l
Overall product	Ingestion		No data available; calculated ATE 2,000 - 5,000 mg/kg
[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
methanol	Dermal		LD50 estimated to be 1,000 - 2,000 mg/kg
methanol	Inhalation-Vapour		LC50 estimated to be 10 - 20 mg/l
methanol	Ingestion		LD50 estimated to be 50 - 300 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

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

Serious Eye Damage/Irritation

Name	Species	Value
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	Rabbit	Corrosive
methanol	Rabbit	Moderate irritant

Skin Sensitisation

Name	Species	Value
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	Guinea pig	Not classified
methanol	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
methanol	In Vitro	Some positive data exist, but the data are not sufficient for classification
methanol	In vivo	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
methanol	Inhalation	Multiple animal species	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
methanol	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,600 mg/kg/day	21 days
methanol	Ingestion	Toxic to development	Mouse	LOAEL 4,000 mg/kg/day	during organogenesis
methanol	Inhalation	Toxic to development	Mouse	NOAEL 1.3 mg/l	during organogenesis

Target Organ(s)**Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
methanol	Inhalation	blindness	Causes damage to organs	Human	NOAEL Not available	occupational exposure
methanol	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	not available
methanol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	6 hours
methanol	Ingestion	blindness	Causes damage to organs	Human	NOAEL Not available	poisoning and/or abuse
methanol	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	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
methanol	Inhalation	liver	Not classified	Rat	NOAEL 6.55 mg/l	4 weeks

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methanol	Inhalation	respiratory system	Not classified	Rat	NOAEL 13.1 mg/l	6 weeks
methanol	Ingestion	liver nervous system	Not classified	Rat	NOAEL 2,500 mg/kg/day	90 days

Aspiration Hazard

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

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

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	CAS #	Organism	Type	Exposure	Test endpoint	Test result
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	2530-83-8	Bacteria	Experimental	5 hours	EC10	1,520 mg/l
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	2530-83-8	Common Carp	Experimental	96 hours	LC50	55 mg/l
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	2530-83-8	Crustacea other	Experimental	48 hours	LC50	324 mg/l
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	2530-83-8	Green algae	Experimental	96 hours	EC50	350 mg/l
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	2530-83-8	Green Algae	Experimental	96 hours	NOEC	130 mg/l
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	2530-83-8	Water flea	Experimental	21 days	NOEC	>=100 mg/l
methanol	67-56-1	Activated sludge	Experimental	3 hours	IC50	>1,000 mg/l
methanol	67-56-1	Algae or other aquatic plants	Experimental	96 hours	EC50	16.9 mg/l
methanol	67-56-1	Bluegill	Experimental	96 hours	LC50	15,400 mg/l
methanol	67-56-1	Green Algae	Experimental	96 hours	EC50	22,000 mg/l
methanol	67-56-1	Water flea	Experimental	24 hours	EC50	20,803 mg/l
methanol	67-56-1	Algae or other aquatic plants	Experimental	96 hours	NOEC	9.96 mg/l
methanol	67-56-1	Water flea	Experimental	21 days	NOEC	122 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	2530-83-8	Experimental Hydrolysis		Hydrolytic half-life	6.5 hours (t _{1/2})	Non-standard method
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	2530-83-8	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	37 % weight	Non-standard method
methanol	67-56-1	Experimental Biodegradation	14 days	BOD	92 % BOD/ThBOD	OECD 301C - MITI test (I)

12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	2530-83-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
methanol	67-56-1	Experimental Bioconcentration		Log Kow	-0.77	Non-standard method

12.4. Mobility in soil

Material	Cas No.	Test type	Study Type	Test result	Protocol
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	2530-83-8	Estimated Mobility in Soil	Koc	58 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. 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)

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 Tunnel Code	No data available.	Not applicable.	No data available.
ADR Classification Code	No data available.	No data available.	No data available.
ADR Transport Category	No data available.	No data available.	No data available.
ADR Multiplier	No data available.	No data available.	No data available.
IMDG Segregation Code	No data available.	No data available.	No data available.
Transport not Permitted	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 Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements 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.

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

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H370	Causes damage to organs.
H371	May cause damage to organs: sensory organs.

Revision information:

EU Section 09: pH information information was added.
CLP: Ingredient table information was modified.
Label: CLP Precautionary - Prevention information was modified.
Label: CLP Target Organ Hazard Statement information was modified.
Section 03: Composition table % Column heading information was added.
Section 3: Composition/ Information of ingredients table information was modified.
Section 03: SCL table information was added.
Section 03: Substance not applicable information was added.
Section 04: Information on toxicological effects information was modified.
Section 5: Hazardous combustion products table information was modified.
Section 8: glove data value information was modified.
Section 8: Occupational exposure limit table information was modified.

Section 9: Evaporation Rate information information was deleted.
Section 9: Explosive properties information information was deleted.
Section 9: Flash point information information was modified.
Section 09: Kinematic Viscosity information information was added.
Section 9: Melting point information information was modified.
Section 9: Oxidising properties information information was deleted.
Section 9: pH information information was deleted.
Section 9: Property description for optional properties information was modified.
Section 9: Vapour density value information was added.
Section 9: Vapour density value information was deleted.
Section 9: Viscosity information information was deleted.
Section 11: Acute Toxicity table information was modified.
Section 11: Carcinogenicity Table information was modified.
Section 11: Classification disclaimer information was modified.
Section 11: Germ Cell Mutagenicity Table information was modified.
Section 11: No endocrine disruptor information available warning information was added.
Section 11: Reproductive Hazards information information was deleted.
Section 11: Reproductive Toxicity Table information was modified.
Section 11: Reproductive/developmental effects information information was added.
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 11: Target Organs - Single Table information was modified.
Section 12: 12.6. Endocrine Disrupting Properties information was added.
Section 12: 12.7. Other adverse effects information was modified.
Section 12: Component ecotoxicity information information was modified.
Section 12: Contact manufacturer for more detail. information was deleted.
Section 12: Mobility in soil information information was added.
Section 12: No endocrine disruptor information available warning information was added.
Section 12: Persistence and Degradability information information was modified.
Section 12: Biocumulative potential information information was modified.
Section 14 Classification Code – Main Heading information was added.
Section 14 Classification Code – Regulation Data information was added.
Section 14 Control Temperature – Main Heading information was added.
Section 14 Control Temperature – Regulation Data information was added.
Section 14 Disclaimer Information information was added.
Section 14 Emergency Temperature – Main Heading information was added.
Section 14 Emergency Temperature – Regulation Data information was added.
Section 14 Hazard Class + Sub Risk – Main Heading information was added.
Section 14 Hazard Class + Sub Risk – Regulation Data information was added.
Section 14 Hazardous/Not Hazardous for Transportation information was added.
Section 14 Multiplier – Main Heading information was added.
Section 14 Multiplier – Regulation Data information was added.
Section 14 Other Dangerous Goods – Main Heading information was added.
Section 14 Other Dangerous Goods – Regulation Data information was added.
Section 14 Packing Group – Main Heading information was added.
Section 14 Packing Group – Regulation Data information was added.
Section 14 Proper Shipping Name information was added.
Section 14 Regulations – Main Headings information was added.
Section 14 Segregation – Regulation Data information was added.
Section 14 Segregation Code – Main Heading information was added.
Section 14 Special Precautions – Main Heading information was added.
Section 14 Special Precautions – Regulation Data information was added.
Section 14 Transport Category – Main Heading information was added.
Section 14 Transport Category – Regulation Data information was added.

Section 14 Transport in bulk – Regulation Data information was added.

Section 14 Transport in bulk according to Annex II of Marpol and the IBC Code – Main Heading information was added.

Section 14 Transport Not Permitted – Main Heading information was added.

Section 14 Transport Not Permitted – Regulation Data information was added.

Section 14 Tunnel Code – Main Heading information was added.

Section 14 Tunnel Code – Regulation Data information was added.

Section 14 UN Number Column data information was added.

Section 14 UN Number information was added.

Section 14: Transportation classification information was deleted.

Section 15: Regulations - Inventories 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.

Section 16: UK disclaimer information was deleted.

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