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 Scotchkote Acrylic Embeddment Coat CSM 844

Product identification numbers
GR-2001-3949-5

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

Identified uses
Coating.

1.3. Details of the supplier of the substance or mixture
Address: 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.
E Mail: tox.uk@mmm.com
Website: www.3M.com/uk

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

SECTION 2: Hazard identification

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

CLASSIFICATION:
Specific Target Organ Toxicity-Repeated Exposure, Category 2 - STOT RE 2; H373

For full text of H phrases, see Section 16.

Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive
Indication of danger
Dangerous for the environment; R52/53

For full text of R phrases, see Section 16.

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

SIGNAL WORD
WARNING!

Symbols:
GHS08 (Health Hazard) |

Pictograms

Ingredient	CAS Nbr	% by Wt
Quartz	14808-60-7	1 - 10

HAZARD STATEMENTS:

H373	May cause damage to organs through prolonged or repeated exposure: respiratory system

PRECAUTIONARY STATEMENTS

Prevention:

P260	Do not breathe dust/fume/gas/mist/vapours/spray.

SUPPLEMENTAL INFORMATION

Supplemental Hazard Statements:

EUH208	Contains 1,2-Benzisothiazol-3(2H)-one. May produce an allergic reaction.

30% of the mixture consists of components of unknown acute oral toxicity.

Contains 26% of components with unknown hazards to the aquatic environment.

Notes on labelling

Nota L applied to CAS #64742-53-6.

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

Symbol(s)

None.

Contains:

No ingredients are assigned to the label.

Risk phrases

R52/53	Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Safety phrases

S61	Avoid release to the environment. Refer to special instructions/safety data sheets.

Special provisions concerning the labelling of certain substances

Safety data sheet available for professional user on request.

Notes on labelling

Nota L applied to CAS# 64742-53-6.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	EU Inventory	% by Wt	Classification
Non-hazardous ingredients	Trade Secret		55 - 65	
Calcium Carbonate	471-34-1	EINECS 207-439-9	10 - 20	
Quartz	14808-60-7	EINECS 238-878-4	1 - 10	Xn:R48/20 (Vendor) STOT RE 1, H372 (Self Classified)
Isobutyric acid, monoester with 2,2,4-trimethylpentane-1,3-diol	25265-77-4	EINECS 246-771-9	1 - 5	R52/53 (Self Classified) Aquatic Chronic 3, H412 (Self Classified)
Carbonic Acid, Zirconium Complex.	68309-95-5	EINECS 269-682-7	1 - 5	
Titanium dioxide	13463-67-7	EINECS 236-675-5	1 - 5	
Mica-Group Minerals	12001-26-2		1 - 5	
1-isopropyl-2,2-dimethyltrimethylene diisobutyrate	6846-50-0	EINECS 229-934-9	1 - 5	R52 (Self Classified)
2-Butoxyethanol	111-76-2	EINECS 203-905-0	< 1	Xn:R20-21-22; Xi:R36-38 (EU) R52 (Self Classified) Acute Tox. 3, H331; Acute Tox. 3, H311; Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319 (CLP)
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6	EINECS 265-156-6	< 1	Nota L (EU) Xn:R20-65; R53 (Self Classified) Nota L (CLP) Acute Tox. 4, H332; Asp. Tox. 1, H304 (Self Classified)
Ammonia, anhydrous	7664-41-7	EINECS 231-635-3	< 0.2	T:R23; C:R34; N:R50; R10 (EU) Flam. Gas 2, H221; Compressed gas, H280; Acute Tox. 3, H331; Skin Corr. 1B, H314; Aquatic Acute 1, H400 - Nota U (CLP)
1,2-Benzisothiazol-3(2H)-one	2634-33-5	EINECS 220-120-9	<= 0.02	Xn:R22; Xi:R38-41; N:R50; R43 (EU)

				Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Dam. 1, H318; Skin Sens. 1, H317; Aquatic Acute 1, H400,M=10 (CLP) Aquatic Chronic 1, H410,M=10 (Self Classified)
Copper sulphate	7758-98-7	EINECS 231-847-6	< 0.00006	Xn:R22; Xi:R36-38; N:R50/53 (EU) Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Aquatic Acute 1, H400,M=10000; Aquatic Chronic 1, H410,M=100 (CLP)

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

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

SECTION 4: First aid measures

4.1. Description of first aid measures

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

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

4.2. Most important symptoms and effects, both acute and delayed
See Section 11.1 Information on toxicological effects

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

SECTION 5: Fire-fighting measures

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

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

Hazardous Decomposition or By-Products

Substance	Condition
Carbon monoxide.	During combustion.
Carbon dioxide.	During combustion.

Irritant vapours or gases.	During combustion.

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. Warning: A motor could be an ignition source and could cause flammable gases or vapours in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions
Avoid release to the environment. 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
For industrial or professional use only. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. 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
Keep from freezing. Store away from strong bases. Store away from oxidising agents.

7.3. Specific end use(s)
See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
2-Butoxyethanol	111-76-2	Health and Safety Comm. (UK)	TWA:123 mg/m3(25 ppm);STEL:246 mg/m3(50 ppm)	Skin Notation
Mica-Group Minerals	12001-26-2	Health and	TWA (Inhalable): 10 mg/m³;	

		Safety Comm. (UK)	TWA (respirable): 0.8 mg/m³	
Titanium dioxide	13463-67-7	Health and Safety Comm. (UK)	TWA(Inhalable):10 mg/m3;TWA(respirable):4 mg/m³	
Quartz	14808-60-7	Health and Safety Comm. (UK)	TWA(respirable):0.1 mg/m3	
Limestone	471-34-1	Health and Safety Comm. (UK)	TWA(as inhalable dust):10 mg/m3;TWA(as respirable dust):4 mg/m3;TWA(Inhalable):10 mg/m3;TWA(respirable):4 mg/m3	
Carbonic Acid, Zirconium Complex	68309-95-5	Health and Safety Comm. (UK)	TWA(as Zr):5 mg/m3;STEL(as Zr):10 mg/m3	
Ammonia, anhydrous	7664-41-7	Health and Safety Comm. (UK)	TWA:18 mg/m3(25 ppm);STEL:25 mg/m3(35 ppm)	

Health and Safety Comm. (UK) : UK Health and Safety Commission
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

8.2. Exposure controls

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

8.2.2. Personal protective equipment (PPE)

Eye/face protection
None required.

Skin/hand protection
No chemical protective gloves are required.

Respiratory protection

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

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Appearance/Odour	Slight ammonia odour; White colour
Odour threshold	*No data available.*
pH	8

Boiling point/boiling range	>=100 ºC
Melting point	*Not applicable.*
Flammability (solid, gas)	Not applicable.
Explosive properties	Not classified
Oxidising properties	Not classified
Flash point	*Not applicable.*
Autoignition temperature	*No data available.*
Flammable Limits(LEL)	*Not applicable.*
Flammable Limits(UEL)	*Not applicable.*
Vapour pressure	*No data available.*
Relative density	1.300 [*Ref Std:*WATER=1]
Water solubility	Complete
Solubility- non-water	*No data available.*
Partition coefficient: n-octanol/water	*No data available.*
Evaporation rate	*Not applicable.*
Vapour density	*No data available.*
Decomposition temperature	*No data available.*
Viscosity	*No data available.*
Density	1.3 g/l

9.2. Other information

Volatile organic compounds (VOC)	21 g/l [*Test Method:*Estimated] [*Details:*EU Definition]
Percent volatile	37.16 % weight

SECTION 10: Stability and reactivity

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

10.2 Chemical stability
Stable.

10.3 Possibility of hazardous reactions
Hazardous polymerisation will not occur.

10.4 Conditions to avoid
Temperatures above the boiling point.

10.5 Incompatible materials
Strong bases.
Strong oxidising agents.

10.6 Hazardous decomposition products

Substance	**Condition**
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

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

present below the threshold for labelling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1 Information on Toxicological effects

Signs and Symptoms of Exposure

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

Inhalation
Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

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

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

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

Carcinogenicity:
Contains a chemical or chemicals which can cause cancer.

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
Calcium Carbonate	Dermal	Rat	LD50 > 2,000 mg/kg
Calcium Carbonate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 3.0 mg/l
Calcium Carbonate	Ingestion	Rat	LD50 6,450 mg/kg
Quartz	Dermal		LD50 estimated to be > 5,000 mg/kg
Quartz	Ingestion		LD50 estimated to be > 5,000 mg/kg
Titanium dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Titanium dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 6.82 mg/l
Titanium dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
Mica-Group Minerals	Dermal		LD50 estimated to be > 5,000 mg/kg
Mica-Group Minerals	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
1-isopropyl-2,2-dimethyltrimethylene diisobutyrate	Dermal	Guinea pig	LD50 > 18,800 mg/kg
1-isopropyl-2,2-dimethyltrimethylene diisobutyrate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 8 mg/l
1-isopropyl-2,2-dimethyltrimethylene diisobutyrate	Ingestion	Rat	LD50 > 3,200 mg/kg
Distillates (petroleum), hydrotreated light naphthenic	Dermal	Rabbit	LD50 > 2,000 mg/kg
Distillates (petroleum), hydrotreated light naphthenic	Inhalation-Dust/Mist (4 hours)	Rat	LC50 2.2 mg/l
Distillates (petroleum), hydrotreated light naphthenic	Ingestion	Rat	LD50 > 5,000 mg/kg
2-Butoxyethanol	Dermal	Rabbit	LD50 400 mg/kg
2-Butoxyethanol	Inhalation-Vapor (4 hours)	Rat	LC50 2.2 mg/l

2-Butoxyethanol	Ingestion	Rat	LD50 560 mg/kg
Ammonia, anhydrous	Inhalation-Gas (4 hours)	Rat	LC50 2,000 ppm

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Calcium Carbonate	Rabbit	No significant irritation
Quartz		No significant irritation
Titanium dioxide	Rabbit	No significant irritation
Distillates (petroleum), hydrotreated light naphthenic	Rabbit	Mild irritant
2-Butoxyethanol	Rabbit	Irritant

Serious Eye Damage/Irritation

Name	Species	Value
Calcium Carbonate	Rabbit	No significant irritation
Titanium dioxide	Rabbit	No significant irritation
Distillates (petroleum), hydrotreated light naphthenic	Rabbit	Mild irritant
2-Butoxyethanol	Rabbit	Severe irritant

Skin Sensitisation

Name	Species	Value
Titanium dioxide	Human and animal	Not sensitizing
Distillates (petroleum), hydrotreated light naphthenic	Guinea pig	Not sensitizing
2-Butoxyethanol	Guinea pig	Not sensitizing

Respiratory Sensitisation

Name	Species	Value

Germ Cell Mutagenicity

Name	Route	Value
Quartz	In Vitro	Some positive data exist, but the data are not sufficient for classification
Quartz	In vivo	Some positive data exist, but the data are not sufficient for classification
Titanium dioxide	In Vitro	Not mutagenic
Titanium dioxide	In vivo	Not mutagenic
Distillates (petroleum), hydrotreated light naphthenic	In Vitro	Some positive data exist, but the data are not sufficient for classification
Distillates (petroleum), hydrotreated light naphthenic	In vivo	Some positive data exist, but the data are not sufficient for classification
2-Butoxyethanol	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Quartz	Inhalation	Human and animal	Carcinogenic.
Titanium dioxide	Ingestion	Multiple animal species	Not carcinogenic
Titanium dioxide	Inhalation	Rat	Carcinogenic.
Distillates (petroleum), hydrotreated light naphthenic	Dermal	Mouse	Not carcinogenic
2-Butoxyethanol	Inhalation	Multiple animal species	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
Calcium Carbonate	Ingestion	Not toxic to development	Rat	NOAEL 625 mg/kg/day	premating & during gestation
Distillates (petroleum), hydrotreated light naphthenic	Ingestion	Not toxic to female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
Distillates (petroleum), hydrotreated light naphthenic	Ingestion	Not toxic to male reproduction	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
Distillates (petroleum), hydrotreated light naphthenic	Dermal	Not toxic to development	Rat	NOAEL 2,000 mg/kg/day	during gestation
Distillates (petroleum), hydrotreated light naphthenic	Ingestion	Not toxic to development	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
Distillates (petroleum), hydrotreated light naphthenic	Dermal	Some positive male reproductive data exist, but the data are not sufficient for classification	Rabbit	NOAEL 1,000 mg/kg/day	28 days
2-Butoxyethanol	Dermal	Not toxic to development	Rat	NOAEL 1,760 mg/kg/day	during gestation
2-Butoxyethanol	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 100 mg/kg/day	during organogenesis
2-Butoxyethanol	Inhalation	Some positive developmental data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL 0.48 mg/l	during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Calcium Carbonate	Inhalation	respiratory system	All data are negative	Rat	NOAEL 0.812 mg/l	90 minutes
2-Butoxyethanol	Dermal	endocrine system	Some positive data exist, but the data are not sufficient for classification	Rabbit	NOAEL 902 mg/kg	6 hours
2-Butoxyethanol	Dermal	liver	Some positive data exist, but the data are not sufficient for classification	Rabbit	LOAEL 72 mg/kg	not available
2-Butoxyethanol	Dermal	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rabbit	LOAEL 451 mg/kg	6 hours
2-Butoxyethanol	Dermal	blood	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL Not available	not available
2-Butoxyethanol	Inhalation	blood	May cause damage to organs	Multiple animal species	NOAEL Not available	not available
2-Butoxyethanol	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
2-Butoxyethanol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
2-Butoxyethanol	Ingestion	blood	Causes damage to organs	Human	NOAEL Not available	poisoning and/or abuse
2-Butoxyethanol	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	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
Calcium Carbonate	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Quartz	Inhalation	silicosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Titanium dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.010 mg/l	2 years
Titanium dioxide	Inhalation	pulmonary fibrosis	All data are negative	Human	NOAEL Not available	occupational exposure
Mica-Group Minerals	Inhalation	pneumoconiosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
2-Butoxyethanol	Dermal	blood	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL Not available	not available
2-Butoxyethanol	Dermal	endocrine system	All data are negative	Rabbit	NOAEL 150 mg/kg/day	90 days
2-Butoxyethanol	Inhalation	blood	May cause damage to organs though prolonged or repeated exposure	Rat	NOAEL 0.12 mg/l	90 days
2-Butoxyethanol	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 2.4 mg/l	14 weeks
2-Butoxyethanol	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 0.15 mg/l	14 weeks
2-Butoxyethanol	Inhalation	endocrine system	Some positive data exist, but the data are not sufficient for classification	Dog	LOAEL 1.9 mg/l	8 days
2-Butoxyethanol	Ingestion	blood	Causes damage to organs through prolonged or repeated exposure	Multiple animal species	NOAEL Not available	not available
2-Butoxyethanol	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL Not available	not available

Aspiration Hazard

Name	Value
Distillates (petroleum), hydrotreated light naphthenic	Aspiration hazard

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

SECTION 12: Ecological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity

No product test data available.

Material	CAS Nbr	Organism	Type	Exposure	Test endpoint	Test result
1,2-Benzisothiazol-3(2H)-one	2634-33-5	Crustacea	Experimental	48 hours	EC50	0.062 mg/l
1,2-	2634-33-5	Rainbow trout	Experimental	96 hours	LC50	1.6 mg/l

Benzisothiazol -3(2H)-one						
1,2-Benzisothiazol -3(2H)-one	2634-33-5	Algae	Experimental	72 hours	EC50	0.15 mg/l
1,2-Benzisothiazol -3(2H)-one	2634-33-5	Water flea	Experimental	48 hours	EC50	4.4 mg/l
1-isopropyl-2,2-dimethyltrimethylene diisobutyrate	6846-50-0	Ricefish	Experimental	96 hours	LC50	18 mg/l
1-isopropyl-2,2-dimethyltrimethylene diisobutyrate	6846-50-0	Green Algae	Experimental	72 hours	EC50	8 mg/l
Isobutyric acid, monoester with 2,2,4-trimethylpentane-1,3-diol	25265-77-4	Water flea	Experimental	96 hours	EC50	>95 mg/l
Isobutyric acid, monoester with 2,2,4-trimethylpentane-1,3-diol	25265-77-4	Green algae	Experimental	72 hours	EC50	18.4 mg/l
Isobutyric acid, monoester with 2,2,4-trimethylpentane-1,3-diol	25265-77-4	Fathead minnow	Experimental	96 hours	LC50	30 mg/l
2-Butoxyethanol	111-76-2	Water flea	Experimental	48 hours	EC50	1,550 mg/l
2-Butoxyethanol	111-76-2	Crustacea	Experimental	96 hours	EC50	89.4 mg/l
2-Butoxyethanol	111-76-2	Green Algae	Experimental	72 hours	EC50	>1,000 mg/l
2-Butoxyethanol	111-76-2	Rainbow trout	Experimental	96 hours	LC50	1,474 mg/l
Calcium Carbonate	471-34-1	Western Mosquitofish	Experimental	96 hours	LC50	>100 mg/l
Carbonic Acid, Zirconium Complex.	68309-95-5	Ricefish	Experimental	96 hours	LC50	410 mg/l
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6	Water flea	Experimental	48 hours	EC50	>100 mg/l
Distillates (petroleum), hydrotreated light	64742-53-6	Green algae	Experimental	96 hours	EC50	>100 mg/l

naphthenic						
Titanium dioxide	13463-67-7	Crustacea other	Experimental	96 hours	EC50	>300 mg/l
Titanium dioxide	13463-67-7	Water flea	Experimental	48 hours	EC50	>100 mg/l
Titanium dioxide	13463-67-7	Sheepshead Minnow	Experimental	96 hours	LC50	>240 mg/l
1-isopropyl-2,2-dimethyltrimethylene diisobutyrate	6846-50-0	Water flea	Experimental	21 days	NOEC	3.2 mg/l
1-isopropyl-2,2-dimethyltrimethylene diisobutyrate	6846-50-0	Green algae	Experimental	72 hours	NOEC	5.3 mg/l
Isobutyric acid, monoester with 2,2,4-trimethylpentane-1,3-diol	25265-77-4	Green algae	Experimental	72 hours	NOEC	3.28 mg/l
2-Butoxyethanol	111-76-2	Water flea	Experimental	21 days	NOEC	100 mg/l
2-Butoxyethanol	111-76-2	Green Algae	Experimental	72 hours	NOEC	130 mg/l
Calcium Carbonate	471-34-1	Rainbow trout	Experimental	21 days	NOEC	>100 mg/l
Titanium dioxide	13463-67-7	Fish	Experimental	30 days	NOEC	>=1,000 mg/l
Titanium dioxide	13463-67-7	Water flea	Experimental	30 days	NOEC	3 mg/l
Quartz	14808-60-7		Data not available or insufficient for classification			
Mica-Group Minerals	12001-26-2		Data not available or insufficient for classification			
Ammonia, anhydrous	7664-41-7	Grass Shrimp	Experimental	48 hours	EC50	9.69 mg/l
Ammonia, anhydrous	7664-41-7	Algae or other aquatic plants	Experimental	72 days	IC50	10.4 mg/l
Ammonia, anhydrous	7664-41-7	Fish	Experimental	96 hours	LC50	1.7 mg/l
Copper sulphate	7758-98-7	Green Algae	Experimental	72 hours	EC50	0.0008 mg/l
Copper sulphate	7758-98-7	Fish	Experimental	96 hours	LC50	.000057 mg/l
Copper sulphate	7758-98-7	Water flea	Experimental	48 hours	EC50	.00003 mg/l
Ammonia, anhydrous	7664-41-7	Water flea	Experimental	21 days	NOEC	18.6 mg/l

Ammonia, anhydrous	7664-41-7	Algae or other aquatic plants	Experimental	72 hours	NOEC	0.73 mg/l
Ammonia, anhydrous	7664-41-7	Bluegill	Experimental	32 days	NOEC	1.56 mg/l
Copper sulphate	7758-98-7	Green Algae	Experimental	72 hours	NOEC	0.0003 mg/l
Copper sulphate	7758-98-7	Water flea	Experimental	14 days	NOEC	0.0032 mg/l
Copper sulphate	7758-98-7	Fish	Experimental	28 days	NOEC	0.0016 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Isobutyric acid, monoester with 2,2,4-trimethylpentane-1,3-diol	25265-77-4	Modeled Persistence		Photolytic half-life (in air)	2.25 days (t 1/2)	Other methods
Carbonic Acid, Zirconium Complex.	68309-95-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Titanium dioxide	13463-67-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Quartz	14808-60-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Calcium Carbonate	471-34-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Mica-Group Minerals	12001-26-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Isobutyric acid, monoester with 2,2,4-trimethylpentane-1,3-diol	25265-77-4	Experimental Biodegradation	34 days	Dissolv. Organic Carbon Deplet	70 % weight	OECD 301E - Modified OECD Scre
1,2-Benzisothiazol-3(2H)-one	2634-33-5	Experimental Biodegradation	28 days	BOD	0 % weight	OECD 301C - MITI test (I)
2-Butoxyethanol	111-76-2	Experimental Biodegradation	14 days	BOD	96 % weight	OECD 301C - MITI test (I)
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6	Experimental Biodegradation	28 days	BOD	42 % weight	OECD 301F - Manometric respirometry
Ammonia,	7664-41-7	Data not	N/A	N/A	N/A	N/A

anhydrous		available or insufficient for classification				
Ammonia, anhydrous	7664-41-7	Experimental Photolysis		Photolytic half-life (in air)	201 days (t 1/2)	Other methods
1-isopropyl-2,2-dimethyltrimethylene diisobutyrate	6846-50-0	Experimental Biodegradation	28 days	BOD	82 % weight	OECD 301C - MITI test (I)

12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Quartz	14808-60-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Carbonic Acid, Zirconium Complex.	68309-95-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Calcium Carbonate	471-34-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Mica-Group Minerals	12001-26-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
1-isopropyl-2,2-dimethyltrimethylene diisobutyrate	6846-50-0	Experimental BCF-Carp	42 days	Bioaccumulation factor	<=31 mg/l	OECD 305C-Bioaccum degree fish
Isobutyric acid, monoester with 2,2,4-trimethylpentane-1,3-diol	25265-77-4	Experimental Bioaccumulation		Log Kow	3.47	Other methods
2-Butoxyethanol	111-76-2	Experimental Bioconcentration		Log Kow	0.83	Other methods
Titanium dioxide	13463-67-7	Experimental BCF - Other	42 days	Bioaccumulation factor	9.6	Other methods
1,2-Benzisothiazol-3(2H)-one	2634-33-5	Experimental Bioconcentration		Log Kow	1.45	Other methods
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6	Experimental Bioconcentration		Log Kow	5.07	Other methods
Ammonia, anhydrous	7664-41-7	Experimental Bioconcentrati		Log Kow	-1.14	Other methods

		on				
Copper sulphate	7758-98-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

12.4. Mobility in soil
Please contact manufacturer for more details

12.5. Results of the PBT and vPvB assessment

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

12.6. Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
See Section 11.1 Information on toxicological effects

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

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

EU waste code (product as sold)
08 01 11* Waste paint and varnish containing organic solvents or other dangerous substances

SECTION 14: Transportation information

GR-2001-3949-5

Not hazardous for transportation

SECTION 15: Regulatory information

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

Carcinogenicity

Ingredient	CAS Nbr	Classification	Regulation
2-Butoxyethanol	111-76-2	Gr. 3: Not classifiable	International Agency for Research on Cancer
Quartz	14808-60-7	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer
Titanium dioxide	13463-67-7	Grp. 2B: Possible human	International Agency

carc. for Research on Cancer

Global inventory status
Contact 3M for more information. The components of this material are in compliance with the China "Measures on Environmental Management of New Chemical Substance". 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 product are in compliance with the new substance notification requirements of CEPA. The components of this product are in compliance with the chemical notification requirements of TSCA.

15.2. Chemical Safety Assessment
Not applicable

SECTION 16: Other information

List of relevant H statements

H221	Flammable gas.
H280	Contains gas under pressure; may explode if heated.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

List of relevant R-phrases

R10	Flammable.
R20	Harmful by inhalation.
R21	Harmful in contact with skin.
R22	Harmful if swallowed.
R23	Toxic by inhalation.
R34	Causes burns.
R36	Irritating to eyes.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R43	May cause sensitisation by skin contact.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R50	Very toxic to aquatic organisms.
R50/53	Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
R52	Harmful to aquatic organisms.
R52/53	Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
R53	May cause long-term adverse effects in the aquatic environment.
R65	Harmful: May cause lung damage if swallowed.

Revision information:
Revision Changes:
Section 8: Respiratory protection - recommended respirators information information was modified.
Section 1: Product identification numbers information was modified.
Section 16: List of relevant R phrase information information was modified.
Section 3: Composition/ Information of ingredients table information was modified.
Section 16: Regulations - Inventories - EU ONLY information was modified.
Copyright information was modified.
Section 8: Occupational exposure limit table information was modified.
Section 11: Aspiration Hazard Table information was modified.
Section 11: Acute Toxicity table information was modified.
Section 11: Carcinogenicity Table information was modified.
Section 11: Serious Eye Damage/Irritation Table information was modified.
Section 11: Germ Cell Mutagenicity Table information was modified.
Section 11: Skin Sensitization Table information was modified.
Section 11: Reproductive Toxicity Table information was modified.
Section 11: Skin Corrosion/Irritation Table information was modified.
Section 11: Target Organs - Repeated Table information was modified.
Section 11: Target Organs - Single Table information was modified.
Section 5: Hazardous combustion products table information was modified.
Section 5: Fire - Extinguishing media information information was modified.
Section 6: Accidental release personal information information was modified.
Section 6: Accidental release clean-up information information was modified.
Section 7: Conditions safe storage information was modified.
Section 8: Personal Protection - Skin/hand information information was modified.
Section 8: Personal Protection - Respiratory Information information was modified.
Section 13: 13.1. Waste disposal note information was modified.
Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material. information was modified.
Risk phrase information was added.
Safety phrase information was added.
Section 2: Indication of danger heading information was added.
Section 2: Indication of danger information information was added.
Section 8: Eye protection information information was added.
Section 12: Component ecotoxicity information information was added.
Section 12: Persistence and Degradability information information was added.
Section 12:Bioccumulative potential information information was added.
Section 12: Component Ecotoxicity table Material column header information was added.
Section 12: Component Ecotoxicity table CAS No column header information was added.
Section 12: Component Ecotoxicity table Organism column header information was added.
Section 12: Component Ecotoxicity table Type column header information was added.
Section 12: Component Ecotoxicity table Exposure column header information was added.
Section 12: Component Ecotoxicity table End point column header information was added.
Section 12: Component Ecotoxicity table Result column header information was added.
Section 12: Persistence and degradability table Material column header information was added.
Section 12: Persistence and degradability table CAS No column header information was added.
Section 12: Persistence and degradability table Test Type column header information was added.
Section 12: Persistence and degradability table Duration column header information was added.
Section 12: Persistence and degradability table Test Result column header information was added.
Section 12: Persistence and degradability table Protocol column header information was added.
Section 12:Bioccumulative potential table Material column header information was added.
Section 12:Bioccumulative potential table CAS No column header information was added.
Section 12:Bioccumulative potential table CAS No column header information was added.
Section 12:Bioccumulative potential table Test Result column header information was added.
Section 12:Bioccumulative potential table Protocol column header information was added.
Section 12:Bioccumulative potential table Test Type column header information was added.

Label: Signal Word - Header information was added.
Label: Signal Word information was added.
Label: CLP Classification - Header information was added.
Label: CLP Classification information was added.
Label: CLP Classification - Header information was added.
Label: CLP Percent Unknown information was added.
Label: CLP Percent Unknown information was added.
Label: Graphic information was added.
Label: Graphic information was added.
Label: Symbol information was added.
Label: Symbol information was added.
Label: CLP Precautionary - Prevention information was added.
Label: CLP Precautionary - Prevention - Header information was added.
Label: Precautionary Statement - Header information was added.
CLP: Ingredient table information was added.
Label: CLP Supplemental Hazard Statements - Header information was added.
Label: CLP Supplemental Information - Header information was added.
Contains statement for sensitizers information was added.
Contains statement for sensitizers information was added.
Contains statement for sensitizers information was added.
Section 2: Notes on labelling heading information was added.
Section 15: Label remarks and EU Detergent information was added.
Section 2: 2.2 & 2.3. CLP REGULATION heading information was added.
Label: CLP Ingredients table Ingredient heading information was added.
Label: CLP Ingredients table CAS No heading information was added.
Label: CLP Ingredients table Percent by Wt heading information was added.
Section 12: Persistence and degradability table Study Type column header information was added.
Section 12:Bioccumulative potential table Test Type column header information was added.
Section 2: H phrase reference information was added.
Section 10: Hazardous decomposition products during combustion text information was added.
Label: CLP Target Organ Hazard Statement Heading information was added.
Label: CLP Target Organ Hazard Statement information was added.
Section 11: Disclosed components not in tables text information was added.
Section 2: R phrase reference information was added.
List of sensitizers information was added.
Section 8: Eye/face protection information information was deleted.
Section 8: Skin protection - recommended gloves information information was deleted.
Section 8: Eye/face protection text information was deleted.
Section 8: Respiratory protection - recommended respirators information was deleted.
Section 8: Skin protection - recommended gloves text information was deleted.
Section 15: Symbol information information was deleted.
Section 12: Acute aquatic hazard information information was deleted.
Section 12: Chronic aquatic hazard heading information was deleted.
Section 12: Acute aquatic hazard heading information was deleted.
Section 12: Chronic aquatic hazard information information was deleted.
Prints No Data if Component ecotoxicity information is not present information was deleted.
Prints No Data if Persistence and Degradability information is not present information was deleted.
Prints No Data if Bioccumulative potential information is not present information was deleted.
Section 8: mg/m³ key information was deleted.
Section 8: ppm key information was deleted.
Section 11: Respiratory Sensitization Table information was deleted.
Section 8: Personal Protection - Eye information information was deleted.
Section 2.1: Classification information information was deleted.
Risk phrase - None 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.

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