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™ Graffiti Remover 1500

Product Identification Numbers
FZ-0100-1400-4 FZ-0100-1401-2

7000082039 7000082040

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

Identified uses
Graffiti removal

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

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

SECTION 2: Hazard identification

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

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

CLASSIFICATION:
Acute Toxicity, Category 4 - Acute Tox. 4; H302
Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315

Serious Eye Damage/Eye Irritation, Category 1 - Eye Dam. 1; H318
Skin Sensitization, Category 1 - Skin Sens. 1; H317
Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H336
Hazardous to the Aquatic Environment (Chronic), Category 3 - Aquatic Chronic 3; H412

For full text of H phrases, see Section 16.

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

SIGNAL WORD
DANGER.

Symbols
GHS05 (Corrosion) |GHS07 (Exclamation mark) |

Pictograms

Ingredients:

Ingredient	CAS Nbr	EC No.	% by Wt
benzyl alcohol	100-51-6	202-859-9	10 - 40
Alcohols, C12-13- branched and linear, ethoxylated (>6, < 15 EO)	160901-19-9	500-457-0	<= 10

HAZARD STATEMENTS:

H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P261E	Avoid breathing vapour or spray.
P280B	Wear protective gloves and 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.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.

20% of the mixture consists of components of unknown acute oral toxicity.

Notes on labelling
Updated per Regulation (EC) No. 648/2004 on detergents.
Ingredients required per 648/2004: <5%: Non-ionic surfactant. Contains: Benzyl alcohol.

2.3. Other hazards

None known.
This material does not contain any substances that are assessed to be a PBT or vPvB

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures

Ingredient	Identifier(s)	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-(2-Ethoxyethoxy)ethanol	(CAS-No.) 111-90-0 (EC-No.) 203-919-7	15 - 40	Substance not classified as hazardous
benzyl alcohol	(CAS-No.) 100-51-6 (EC-No.) 202-859-9 (REACH-No.) 01-2119492630-38	10 - 40	Acute Tox. 4, H302(LD50 = 1200 mg/kg ATE values per Annex VI) Eye Irrit. 2, H319 Skin Sens. 1B, H317 STOT SE 3, H336
(2-Methoxymethylethoxy)propanol	(CAS-No.) 34590-94-8 (EC-No.) 252-104-2	15 - 40	Substance with a Union workplace exposure limit
Fatty acids, C16-18 and C18-unsatd., Me esters	(CAS-No.) 67762-38-3 (EC-No.) 267-015-4	5 - 20	Aquatic Chronic 3, H412
3-butoxypropan-2-ol	(CAS-No.) 5131-66-8 (EC-No.) 225-878-4	<= 10	Skin Irrit. 2, H315 Eye Irrit. 2, H319
Alcohols, C12-13- branched and linear, ethoxylated (>6, < 15 EO)	(CAS-No.) 160901-19-9 (EC-No.) 500-457-0	<= 10	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Acute 1, H400,M=1 Aquatic Chronic 2, H411

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

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

SECTION 4: First aid measures

4.1. Description of first aid measures

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

Skin contact
Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye contact
Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately get medical attention.

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

4.2. Most important symptoms and effects, both acute and delayed
The most important symptoms and effects based on the CLP classification include:
Irritation to the skin (localized redness, swelling, itching, and dryness). Allergic skin reaction (redness, swelling, blistering, and itching). Serious damage to the eyes (corneal cloudiness, severe pain, tearing, ulcerations, and significantly impaired or loss of vision). Harmful if swallowed. Central nervous system depression (headache, dizziness, drowsiness, incoordination, nausea, slurred speech, giddiness, and unconsciousness).

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 carbon dioxide or dry chemical extinguisher to extinguish.

5.2. Special hazards arising from the substance or mixture
Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

Substance	Condition
Carbon monoxide	During combustion.
Carbon dioxide.	During combustion.
Toxic vapour, gas, particulate.	During combustion.

5.3. Advice for fire-fighters
Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. 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. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. 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. Use personal protective equipment based on the results of an exposure assessment. Refer to Section 8 for PPE recommendations. If anticipated exposure resulting from an accidental release exceeds the protective capabilities of the PPE listed in Section 8, or are unknown, select PPE that offers an appropriate level of protection. Consider the physical and chemical hazards of the material when doing so. Examples of PPE ensembles for emergency response could include wearing bunker gear for a release of flammable material; wearing chemical protective clothing if the spilled material is a corrosive, a sensitizer, a significant dermal irritant, or can be absorbed through the skin; or donning a positive pressure supplied-air respirator for chemicals with inhalation hazards. For information regarding physical and health hazards, refer to sections 2 and 11 of the SDS.

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

6.3. Methods and material for containment and cleaning up
Contain spill. Cover spill area with a fire extinguishing foam that is resistant to polar solvents. 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 using non-sparking tools. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. Seal the container. Dispose of collected material as soon as possible.

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling
For industrial/occupational use only. Not for consumer sale or use. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.)

7.2. Conditions for safe storage including any incompatibilities
Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store away from heat. Store away from acids. 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
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
(2-Methoxymethylethoxy)propanol	34590-94-8	Ireland OELs	TWA(8 hours):308 mg/m3(50 ppm);TWA(8 hours):50 ppm(308 mg/m3)	SKIN

Ireland OELs : Ireland. OELs
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

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

Recommended monitoring procedures: Information on recommended monitoring procedures can be obtained from Indust. Inspect./Ministry (IE)

8.2. Exposure controls

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

8.2.2. Personal protective equipment (PPE)

Eye/face protection

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

Applicable Norms/Standards
Use eye/face protection conforming to EN 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**
Polymer laminate	No data available	No data available

Applicable Norms/Standards
Use gloves tested to EN 374

Respiratory protection

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

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

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Colour	Green
Odor	Mild Ether
Odour threshold	*No data available.*
Melting point/freezing point	*Not applicable.*
Boiling point/boiling range	>=150 ºC
Flammability	Not applicable.
Flammable Limits(LEL)	*No data available.*
Flammable Limits(UEL)	*No data available.*

Flash point	90 - 100 ºC [*Test Method:*Closed Cup]
Autoignition temperature	*No data available.*
Decomposition temperature	*No data available.*
pH	*substance/mixture not stable*
Kinematic Viscosity	*No data available.*
Water solubility	*No data available.*
Solubility- non-water	*No data available.*
Partition coefficient: n-octanol/water	*No data available.*
Vapour pressure	*No data available.*
Density	0.965 - 0.98 g/ml [@ 20 ºC]
Relative density	0.965 - 0.98 [@ 20 ºC] [*Ref Std:*WATER=1]
Relative Vapour Density	*No data available.*
Particle Characteristics	*Not applicable.*

9.2. Other information

9.2.2 Other safety characteristics

EU Volatile Organic Compounds	868 - 931 g/l
Evaporation rate	*No data available.*
Percent volatile	*No data available.*

SECTION 10: Stability and reactivity

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

10.2 Chemical stability
Stable.

10.3 Possibility of hazardous reactions
Hazardous polymerisation will not occur.

10.4 Conditions to avoid
Heat.
Sparks and/or flames.

10.5 Incompatible materials
Strong oxidising agents.
Strong acids.
Drugs, medicines and/or food supplies.

10.6 Hazardous decomposition products

Substance	**Condition**
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition,

statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from internal hazard assessments.

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

Signs and Symptoms of Exposure

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

Inhalation
May be harmful if inhaled. 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
Skin Irritation: Signs/symptoms may include localised redness, swelling, itching, dryness, cracking, blistering, and pain. Allergic Skin Reaction (non-photo induced) in sensitive people: Signs/symptoms may include redness, swelling, blistering, and itching.

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
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:
Central nervous system (CNS) depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

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

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Inhalation-Dust/Mist(4 hr)		No data available; calculated ATE >5 - =12.5 mg/l
Overall product	Ingestion		No data available; calculated ATE >300 - =2,000 mg/kg
(2-Methoxymethylethoxy)propanol	Dermal	Rabbit	LD50 > 19,000 mg/kg
(2-Methoxymethylethoxy)propanol	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 50 mg/l
(2-Methoxymethylethoxy)propanol	Ingestion	Rat	LD50 5,180 mg/kg
2-(2-Ethoxyethoxy)ethanol	Dermal	Rabbit	LD50 9,143 mg/kg
2-(2-Ethoxyethoxy)ethanol	Ingestion	Rat	LD50 5,400 mg/kg
benzyl alcohol	Inhalation-Dust/Mist (4 hours)	Rat	LC50 8.8 mg/l
benzyl alcohol	Ingestion	Rat	LD50 1,200 mg/kg
3-butoxypropan-2-ol	Dermal	Rat	LD50 > 2,000 mg/kg
3-butoxypropan-2-ol	Inhalation-	Rat	LC50 > 8.5 mg/l

	Vapour		
3-butoxypropan-2-ol	Ingestion	Rat	LD50 2,124 mg/kg
Alcohols, C12-13- branched and linear, ethoxylated (>6, < 15 EO)	Dermal	Professional judgement	LD50 estimated to be 2,000 - 5,000 mg/kg
Alcohols, C12-13- branched and linear, ethoxylated (>6, < 15 EO)	Ingestion	Professional judgement	LD50 estimated to be 300 - 2,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
(2-Methoxymethylethoxy)propanol	Human and animal	No significant irritation
2-(2-Ethoxyethoxy)ethanol	Rabbit	No significant irritation
benzyl alcohol	Multiple animal species	Mild irritant
3-butoxypropan-2-ol	Rabbit	Mild irritant
Alcohols, C12-13- branched and linear, ethoxylated (>6, < 15 EO)	Rabbit	Irritant

Serious Eye Damage/Irritation

Name	Species	Value
(2-Methoxymethylethoxy)propanol	Rabbit	Mild irritant
2-(2-Ethoxyethoxy)ethanol	Rabbit	Mild irritant
benzyl alcohol	Rabbit	Severe irritant
3-butoxypropan-2-ol	Rabbit	Severe irritant
Alcohols, C12-13- branched and linear, ethoxylated (>6, < 15 EO)	Professional judgement	Corrosive

Skin Sensitisation

Name	Species	Value
(2-Methoxymethylethoxy)propanol	Human	Not classified
2-(2-Ethoxyethoxy)ethanol	In vitro data	Not classified
benzyl alcohol	Human	Some positive data exist, but the data are not sufficient for classification
Alcohols, C12-13- branched and linear, ethoxylated (>6, < 15 EO)	Human and animal	Not classified

Respiratory Sensitisation

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

Germ Cell Mutagenicity

Name	Route	Value
(2-Methoxymethylethoxy)propanol	In Vitro	Not mutagenic
2-(2-Ethoxyethoxy)ethanol	In Vitro	Not mutagenic
2-(2-Ethoxyethoxy)ethanol	In vivo	Not mutagenic
benzyl alcohol	In vivo	Not mutagenic
benzyl alcohol	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
benzyl alcohol	Ingestion	Multiple animal species	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
(2-Methoxymethylethoxy)propanol	Inhalation	Not classified for development	Multiple animal species	NOAEL 1.82 mg/l	during organogenesis
2-(2-Ethoxyethoxy)ethanol	Ingestion	Not classified for female reproduction	Mouse	NOAEL 4,400 mg/kg/day	2 generation
2-(2-Ethoxyethoxy)ethanol	Dermal	Not classified for development	Rat	NOAEL 5,500 mg/kg/day	during organogenesis
2-(2-Ethoxyethoxy)ethanol	Ingestion	Not classified for development	Mouse	NOAEL 5,500 mg/kg/day	during organogenesis
2-(2-Ethoxyethoxy)ethanol	Inhalation	Not classified for development	Rat	NOAEL 0.6 mg/l	during organogenesis
2-(2-Ethoxyethoxy)ethanol	Ingestion	Not classified for male reproduction	Mouse	NOAEL 2,200 mg/kg/day	2 generation
benzyl alcohol	Ingestion	Not classified for development	Mouse	NOAEL 550 mg/kg/day	during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
(2-Methoxymethylethoxy)propanol	Dermal	central nervous system depression	Not classified	Rabbit	NOAEL 2,850 mg/kg	
(2-Methoxymethylethoxy)propanol	Inhalation	central nervous system depression	Not classified	Rat	LOAEL 3.07 mg/l	7 hours
(2-Methoxymethylethoxy)propanol	Ingestion	central nervous system depression	Not classified	Rat	LOAEL 5,000 mg/kg	
2-(2-Ethoxyethoxy)ethanol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
benzyl alcohol	Inhalation	central nervous system depression	May cause drowsiness or dizziness		NOAEL Not available	
benzyl alcohol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
benzyl alcohol	Ingestion	central nervous system depression	May cause drowsiness or dizziness		NOAEL Not available	
Alcohols, C12-13-branched and linear, ethoxylated (>6, < 15 EO)	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
(2-Methoxymethylethoxy)propanol	Dermal	kidney and/or bladder | heart | endocrine system |	Not classified	Rabbit	NOAEL 9,500 mg/kg/day	90 days

		hematopoietic system | liver | respiratory system				
(2-Methoxymethylethoxy)propanol	Inhalation	heart | hematopoietic system | liver | immune system | nervous system | eyes | kidney and/or bladder	Not classified	Rat	NOAEL 1.21 mg/l	90 days
(2-Methoxymethylethoxy)propanol	Ingestion	liver | heart | endocrine system | bone, teeth, nails, and/or hair | hematopoietic system | immune system | nervous system | kidney and/or bladder | respiratory system	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days
2-(2-Ethoxyethoxy)ethanol	Dermal	kidney and/or bladder	Not classified	Rabbit	NOAEL 1,000 mg/kg/day	12 weeks
2-(2-Ethoxyethoxy)ethanol	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Pig	NOAEL 167 mg/kg/day	90 days
2-(2-Ethoxyethoxy)ethanol	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 2,700 mg/kg/day	90 days
2-(2-Ethoxyethoxy)ethanol	Ingestion	endocrine system	Not classified	Rat	NOAEL 2,500 mg/kg/day	90 days
2-(2-Ethoxyethoxy)ethanol	Ingestion	heart | hematopoietic system | nervous system	Not classified	Mouse	NOAEL 8,100 mg/kg/day	90 days
benzyl alcohol	Ingestion	endocrine system | muscles | kidney and/or bladder	Not classified	Rat	NOAEL 400 mg/kg/day	13 weeks
benzyl alcohol	Ingestion	nervous system | respiratory system	Not classified	Mouse	NOAEL 645 mg/kg/day	8 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
(2-Methoxymethylethoxy) propanol	34590-94-8	Bacteria	Experimental	18 hours	EC10	4,168 mg/l
(2-Methoxymethylethoxy) propanol	34590-94-8	Fathead minnow	Experimental	96 hours	LC50	>10,000 mg/l
(2-Methoxymethylethoxy) propanol	34590-94-8	Green algae	Experimental	72 hours	ErC50	>969 mg/l
(2-Methoxymethylethoxy) propanol	34590-94-8	Water flea	Experimental	48 hours	LC50	1,919 mg/l
(2-Methoxymethylethoxy) propanol	34590-94-8	Green algae	Experimental	72 hours	EC10	133 mg/l
benzyl alcohol	100-51-6	Activated sludge	Experimental	3 hours	EC50	1,385 mg/l
benzyl alcohol	100-51-6	Fathead minnow	Experimental	96 hours	LC50	460 mg/l
benzyl alcohol	100-51-6	Green algae	Experimental	72 hours	ErC50	770 mg/l
benzyl alcohol	100-51-6	Water flea	Experimental	48 hours	EC50	230 mg/l
benzyl alcohol	100-51-6	Green algae	Experimental	72 hours	NOEC	310 mg/l
benzyl alcohol	100-51-6	Water flea	Experimental	21 days	NOEC	51 mg/l
2-(2-Ethoxyethoxy)ethanol	111-90-0	Channel Catfish	Experimental	96 hours	LC50	6,010 mg/l
2-(2-Ethoxyethoxy)ethanol	111-90-0	Green algae	Experimental	72 hours	ErC50	14,861 mg/l
2-(2-Ethoxyethoxy)ethanol	111-90-0	Tidewater Silverside	Experimental	96 hours	LC50	>10,000 mg/l
2-(2-Ethoxyethoxy)ethanol	111-90-0	Water flea	Experimental	48 hours	LC50	1,982 mg/l
2-(2-Ethoxyethoxy)ethanol	111-90-0	Green algae	Analogous Compound	96 hours	NOEC	100 mg/l
2-(2-Ethoxyethoxy)ethanol	111-90-0	Bacteria	Experimental	16 hours	EC10	4,000 mg/l
Fatty acids, C16-18 and C18-unsatd., Me esters	67762-38-3	Green algae	Endpoint not reached	72 hours	EC50	>100 mg/l
Fatty acids, C16-18 and C18-unsatd., Me esters	67762-38-3	Water flea	Experimental	48 hours	No tox obs at lmt of water sol	>100 mg/l
Fatty acids, C16-18 and C18-unsatd., Me esters	67762-38-3	Zebra Fish	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
Fatty acids, C16-18 and C18-unsatd., Me esters	67762-38-3	Green algae	Experimental	72 hours	NOEL	<1 mg/l
Fatty acids, C16-18 and C18-unsatd., Me esters	67762-38-3	Bacteria	Experimental	16 hours	EC0	5,250 mg/l
3-butoxypropan-2-ol	5131-66-8	Green algae	Experimental	96 hours	EC50	>1,000 mg/l
3-butoxypropan-2-ol	5131-66-8	Guppy	Experimental	96 hours	LC50	>560 mg/l
3-butoxypropan-2-ol	5131-66-8	Water flea	Experimental	48 hours	EC50	>1,000 mg/l
3-butoxypropan-2-ol	5131-66-8	Green algae	Experimental	96 hours	NOEC	560 mg/l
Alcohols, C12-13-branched and linear, ethoxylated (>6, < 15 EO)	160901-19-9	Fathead minnow	Analogous Compound	96 hours	LC50	0.48 mg/l
Alcohols, C12-13-branched and linear, ethoxylated (>6, < 15 EO)	160901-19-9	Green algae	Analogous Compound	N/A	ErC50	0.62 mg/l

Alcohols, C12-13-branched and linear, ethoxylated (>6, < 15 EO)	160901-19-9	Water flea	Analogous Compound	48 hours	EC50	0.14 mg/l
Alcohols, C12-13-branched and linear, ethoxylated (>6, < 15 EO)	160901-19-9	Green algae	Analogous Compound	72 hours	NOEC	0.039 mg/l
Alcohols, C12-13-branched and linear, ethoxylated (>6, < 15 EO)	160901-19-9	Rainbow trout	Analogous Compound	N/A	EC10	0.079 mg/l
Alcohols, C12-13-branched and linear, ethoxylated (>6, < 15 EO)	160901-19-9	Water flea	Analogous Compound	N/A	EC10	0.082 mg/l
Alcohols, C12-13-branched and linear, ethoxylated (>6, < 15 EO)	160901-19-9	Activated sludge	Analogous Compound	N/A	EC50	140 mg/l
Alcohols, C12-13-branched and linear, ethoxylated (>6, < 15 EO)	160901-19-9	Cress	Analogous Compound	17 days	EC50	>10 mg/kg (Dry Weight)
Alcohols, C12-13-branched and linear, ethoxylated (>6, < 15 EO)	160901-19-9	Redworm	Analogous Compound	14 days	LC50	>1,000 mg/kg (Dry Weight)

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
(2-Methoxymethylethoxy)propanol	34590-94-8	Experimental Biodegradation	28 days	BOD	75 %BOD/ThOD	OECD 301F - Manometric respirometry
(2-Methoxymethylethoxy)propanol	34590-94-8	Experimental Aquatic Inherent Biodegrad.	13 days	Dissolv. Organic Carbon Deplet	94 %removal of DOC	OECD 302B Zahn-Wellens/EVPA
benzyl alcohol	100-51-6	Experimental Biodegradation	14 days	BOD	94 %BOD/ThOD	OECD 301C - MITI test (I)
2-(2-Ethoxyethoxy)ethanol	111-90-0	Experimental Biodegradation	16 days	CO2 evolution	100 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
2-(2-Ethoxyethoxy)ethanol	111-90-0	Experimental Aquatic Inherent Biodegrad.	5.5 days	Percent degraded	>90 %degraded	OECD 302B Zahn-Wellens/EVPA
2-(2-Ethoxyethoxy)ethanol	111-90-0	Experimental Photolysis		Photolytic half-life (in air)	6.7 hours (t 1/2)	
Fatty acids, C16-18 and C18-unsatd., Me esters	67762-38-3	Experimental Biodegradation	29 days	CO2 evolution	75 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
3-butoxypropan-2-ol	5131-66-8	Experimental Biodegradation	28 days	BOD	89 %BOD/ThOD	OECD 301C - MITI test (I)
Alcohols, C12-13- branched and linear, ethoxylated (>6, < 15 EO)	160901-19-9	Analogous Compound Biodegradation	28 days	CO2 evolution	95.4 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2

12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
(2-Methoxymethylethoxy)propanol	34590-94-8	Experimental Bioconcentration		Log Kow	0.004	OECD 107 log Kow shke flsk mtd
benzyl alcohol	100-51-6	Experimental Bioconcentration		Log Kow	1.10	

2-(2-Ethoxyethoxy)ethanol	111-90-0	Experimental Bioconcentration		Log Kow	-0.54	
Fatty acids, C16-18 and C18-unsatd., Me esters	67762-38-3	Experimental Bioconcentration		Log Kow	> 6.2	OECD 117 log Kow HPLC method
3-butoxypropan-2-ol	5131-66-8	Experimental Bioconcentration		Log Kow	1.2	
Alcohols, C12-13-branched and linear, ethoxylated (>6, < 15 EO)	160901-19-9	Analogous Compound BCF - Fish	72 hours	Bioaccumulation factor	232.5	
Alcohols, C12-13-branched and linear, ethoxylated (>6, < 15 EO)	160901-19-9	Analogous Compound Bioconcentration		Log Kow	5.51	

12.4. Mobility in soil

Material	Cas No.	Test type	Study Type	Test result	Protocol
benzyl alcohol	100-51-6	Experimental Mobility in Soil	Koc	29 l/kg	
2-(2-Ethoxyethoxy)ethanol	111-90-0	Modeled Mobility in Soil	Koc	1 l/kg	Episuite™
Fatty acids, C16-18 and C18-unsatd., Me esters	67762-38-3	Experimental Mobility in Soil	Koc	> 4.27E+05 l/kg	OECD 121 Estim. of Koc by HPLC
Alcohols, C12-13-branched and linear, ethoxylated (>6, < 15 EO)	160901-19-9	Modeled Mobility in Soil	Koc	185 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.

Incinerate in a permitted waste incineration facility. As a disposal alternative, utilize an acceptable permitted waste disposal facility. 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)
070604* 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 or ID number	No data available.	No data available.	No data available.
14.2 UN proper shipping name	No data available.	No data available.	No data available.
14.3 Transport hazard class(es)	No data available.	No data available.	No data available.
14.4 Packing group	No data available.	No data available.	No data available.
14.5 Environmental hazards	No data available.	No data available.	No data available.
14.6 Special precautions for user	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.
14.7 Marine Transport in bulk according to IMO instruments	No data available.	No data available.	No data available.
Control Temperature	No data available.	No data available.	No data available.
Emergency Temperature	No data available.	No data available.	No data available.
ADR Classification Code	No data available.	No data available.	No data available.
IMDG Segregation Code	No data available.	No data available.	No data available.

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

SECTION 15: Regulatory information

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

Global inventory status
Contact 3M for more 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.

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

Seveso named dangerous substances, Annex 1, Part 2
None

Regulation (EU) No 649/2012
No chemicals listed

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

SECTION 16: Other information

List of relevant H statements

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Revision information:
Section 11: Reproductive Toxicity Table information was modified.
Section 11: Serious Eye Damage/Irritation Table information was modified.
Section 11: Skin Sensitization Table information was modified.

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

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