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 Perfect-It III 50383 Ultrafina SE

Product identification numbers
GC-8010-3469-2 GC-8010-3470-0

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

Identified uses
Automotive.

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:
Chronic Aquatic Toxicity: Category 3.

Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive
Indication of danger
R66
R67

For full text of R phrases, see Section 16.

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

HAZARD STATEMENTS:

H412	Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Disposal:

P501	Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

SUPPLEMENTAL INFORMATION

Supplemental Hazard Statements:

EUH066	Repeated exposure may cause skin dryness or cracking.
EUH208	Contains 1,2-Benzisothiazol-3(2H)-one. May produce an allergic reaction.

Contains 20% of components with unknown hazards to the aquatic environment.

Notes on labelling
H304 is not required on the label due to the product's viscosity
Nota L applied to CAS# 64741-88-4.

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

Symbol(s)

None.

Contains:

No ingredients are assigned to the label.

Risk phrases

R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

Safety phrases None.

Notes on labelling
R65 is not required on the label due to the product's viscosity.

Nota L applied to CAS# 64741-88-4.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	EU Inventory	% by Wt	Classification
Non-hazardous ingredients	Mixture		40 - 70	
Distillates (petroleum), hydrotreated light	64742-47-8	EINECS 265-	10 - 30	Xn:R65 - Nota 4 (EU)

		149-8		R10; R66; R67 (Self Classified) Asp. Tox. 1, H304 (CLP) Flam. Liq. 3, H226; STOT SE 3, H336; EUH066 (Self Classified)
Dodecamethylcyclohexasiloxane	540-97-6	EINECS 208-762-8	7 - 20	R53 (Self Classified) Aquatic Chronic 4, H413 (Self Classified)
Aluminium oxide	1344-28-1	EINECS 215-691-6	1 - 10	
Distillates (petroleum), solvent-refined heavy paraffinic	64741-88-4	EINECS 265-090-8	1 - 5	Nota L (EU) Xn:R65; R66 (Self Classified) Nota L (CLP) Asp. Tox. 1, H304; EUH066 (Self Classified)
Decamethylcyclopentasiloxane	541-02-6	EINECS 208-764-9	0.1 - 1	
Undecan-1-ol, ethoxylated	34398-01-1	NLP 500-084-3	0.1 - 1	Xi:R41 (Vendor) R52 (Self Classified) Eye Dam. 1, H318 (Vendor) Aquatic Chronic 3, H412 (Self Classified)
2,2',2"-Nitrilotriethanol	102-71-6	EINECS 203-049-8	0.1 - 1	
1,2-Benzisothiazol-3(2H)-one	2634-33-5	EINECS 220-120-9	< 0.05	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)

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

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

Skin contact
Wash with soap and water. If signs/symptoms develop, get medical attention.

Inhalation
Remove person to fresh air. If you feel unwell, 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 carbon dioxide or dry chemical extinguisher for extinction.

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

Hazardous Decomposition or By-Products

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

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

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. 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 toxic, corrosivity or flammability 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 detergent and 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 use in a confined area or areas with little or no air movement. 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.)

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. 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

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Aluminium oxide	1344-28-1	Health and Safety Comm. (UK)	TWA(as inhalable dust):10 mg/m³;TWA(as respirable dust):4 mg/m³	

Health and Safety Comm. (UK) : UK Health and Safety Commission
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
ppm: parts per million
mg/m³: milligrams per cubic metre
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
Provide appropriate local exhaust ventilation for cutting, grinding, sanding or machining. 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

Wear eye/face protection.
The following eye protection(s) are recommended: Safety glasses with side shields.

Skin/hand protection

Wear protective gloves.
Gloves made from the following material(s) are recommended: Nitrile rubber.

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	Solvent odour; pale blue liquid
pH	7.5 - 8.5
Boiling point/boiling range	*No data available.*
Melting point	*Not applicable.*
Flammability (solid, gas)	Not applicable.
Explosive properties	Not classified
Oxidising properties	Not classified
Flash point	>= 110 ºC [*Test Method:*Closed Cup]
Autoignition temperature	*Not applicable.*
Flammable Limits(LEL)	*No data available.*
Flammable Limits(UEL)	*No data available.*
Vapour pressure	*No data available.*
Relative density	0.911 - 1.007 [*Ref Std:*WATER=1]
Water solubility	Appreciable
Partition coefficient: n-octanol/water	*No data available.*
Evaporation rate	*No data available.*
Vapour density	4.5 [*Ref Std:*AIR=1]
Viscosity	10,000 - 13 Pa-s

9.2. Other information

Volatile organic compounds (VOC)	288 g/l [*Details:*calculated]
Percent volatile	57.2 %

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.
High shear and high temperature conditions
Sparks and/or flames.
Temperatures above the boiling point.

10.5 Incompatible materials
Strong oxidising agents.
Strong acids.
Alkali and alkaline earth metals.

10.6 Hazardous decomposition products

Substance	**Condition**
None known.	

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:

Eye contact
Dust created by cutting, grinding, sanding, or machining may cause eye irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Skin contact
Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

Inhalation
Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Dust from cutting, grinding, sanding or machining may cause irritation of the respiratory system: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, nose and throat pain. May cause target organ effects after inhalation.

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

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.
Prolonged or repeated exposure by ingestion may cause:
Pneumoconiosis: Sign/symptoms may include persistent cough, breathlessness, chest pain, increased amounts of sputum, and changes in lung function tests.

Toxicological Data

Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No test data available; calculated ATE >5,000 mg/kg
Distillates (petroleum), hydrotreated light	Dermal	Rabbit	LD50 > 3,160 mg/kg
Dodecamethylcyclohexasiloxane	Ingestion	Rat	LD50 > 50,000 mg/kg
Distillates (petroleum), hydrotreated light	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 3.0 mg/l
Distillates (petroleum), hydrotreated light	Ingestion	Rat	LD50 > 5,000 mg/kg
Aluminium oxide	Inhalation-Dust/Mist (4 hours)	Rabbit	LC50 > 1.9 mg/l
Aluminium oxide	Ingestion	Rat	LD50 > 5,000 mg/kg
Distillates (petroleum), solvent-refined heavy paraffinic	Dermal	Rabbit	LD50 > 2,000 mg/kg

Distillates (petroleum), solvent-refined heavy paraffinic	Inhalation-Dust/Mist (4 hours)	Rat	LC50 2.2 mg/l
Distillates (petroleum), solvent-refined heavy paraffinic	Ingestion	Rat	LD50 > 5,000 mg/kg
2,2',2"-Nitrilotriethanol	Dermal	Rabbit	LD50 > 2,000 mg/kg
2,2',2"-Nitrilotriethanol	Ingestion	Rat	LD50 9,000 mg/kg
Undecan-1-ol, ethoxylated	Dermal	Rat	LD50 > 2,000 mg/kg
Undecan-1-ol, ethoxylated	Ingestion	Rat	LD50 > 2,000 mg/kg
Decamethylcyclopentasiloxane	Dermal	Rabbit	LD50 > 15,000 mg/kg
Decamethylcyclopentasiloxane	Inhalation-Dust/Mist (4 hours)	Rat	LC50 8.7 mg/l
Decamethylcyclopentasiloxane	Ingestion	Rat	LD50 > 24,134 mg/kg
1,2-Benzisothiazol-3(2H)-one			No data available

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Dodecamethylcyclohexasiloxane		No significant irritation
Distillates (petroleum), hydrotreated light		Mild irritant
Aluminium oxide		No data available
Distillates (petroleum), solvent-refined heavy paraffinic		Minimal irritation
2,2',2"-Nitrilotriethanol	Rabbit	Minimal irritation
Undecan-1-ol, ethoxylated		No data available
Decamethylcyclopentasiloxane		No data available
1,2-Benzisothiazol-3(2H)-one		No data available

Serious Eye Damage/Irritation

Name	Species	Value
Dodecamethylcyclohexasiloxane		Mild irritant
Distillates (petroleum), hydrotreated light		Mild irritant
Aluminium oxide		No data available
Distillates (petroleum), solvent-refined heavy paraffinic		Mild irritant
2,2',2"-Nitrilotriethanol	Rabbit	Mild irritant
Undecan-1-ol, ethoxylated		No data available
Decamethylcyclopentasiloxane		No data available
1,2-Benzisothiazol-3(2H)-one		No data available

Skin Sensitisation

Name	Species	Value
Dodecamethylcyclohexasiloxane		No data available
Distillates (petroleum), hydrotreated light		Not sensitizing
Aluminium oxide		No data available
Distillates (petroleum), solvent-refined heavy paraffinic		Not sensitizing
2,2',2"-Nitrilotriethanol	Human	Some positive data exist, but the data are not sufficient for classification
Undecan-1-ol, ethoxylated		No data available
Decamethylcyclopentasiloxane		No data available
1,2-Benzisothiazol-3(2H)-one		No data available

Respiratory Sensitisation

Name	Species	Value
Dodecamethylcyclohexasiloxane		No data available
Distillates (petroleum), hydrotreated light		No data available
Aluminium oxide		No data available
Distillates (petroleum), solvent-refined heavy paraffinic		No data available

2,2',2"-Nitrilotriethanol		No data available
Undecan-1-ol, ethoxylated		No data available
Decamethylcyclopentasiloxane		No data available
1,2-Benzisothiazol-3(2H)-one		No data available

Germ Cell Mutagenicity

Name	Route	Value
Dodecamethylcyclohexasiloxane		No data available
Distillates (petroleum), hydrotreated light	In Vitro	Not mutagenic
Aluminium oxide	In Vitro	Not mutagenic
Distillates (petroleum), solvent-refined heavy paraffinic	In Vitro	Some positive data exist, but the data are not sufficient for classification
2,2',2"-Nitrilotriethanol	In Vitro	Not mutagenic
2,2',2"-Nitrilotriethanol	In vivo	Not mutagenic
Undecan-1-ol, ethoxylated		No data available
Decamethylcyclopentasiloxane		No data available
1,2-Benzisothiazol-3(2H)-one		No data available

Carcinogenicity

Name	Route	Species	Value
Dodecamethylcyclohexasiloxane			No data available
Distillates (petroleum), hydrotreated light	Dermal		Some positive data exist, but the data are not sufficient for classification
Aluminium oxide	Inhalation		Not carcinogenic
Distillates (petroleum), solvent-refined heavy paraffinic	Dermal		Some positive data exist, but the data are not sufficient for classification
2,2',2"-Nitrilotriethanol	Dermal	Multiple animal species	Not carcinogenic
2,2',2"-Nitrilotriethanol	Ingestion	Mouse	Some positive data exist, but the data are not sufficient for classification
Undecan-1-ol, ethoxylated			No data available
Decamethylcyclopentasiloxane			No data available
1,2-Benzisothiazol-3(2H)-one			No data available

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Dodecamethylcyclohexasiloxane	Ingestion	Some positive reproductive/developmental data exist, but the data are not sufficient for classification		NOEL 330 mg/kg/day	
Distillates (petroleum), hydrotreated light	Inhalation	Not toxic to reproduction and/or development		NOAEL 364 ppm	
Aluminium oxide		No data available			
Distillates (petroleum), solvent-refined heavy paraffinic		No data available			
2,2',2"-Nitrilotriethanol	Ingestion	Not toxic to development	Mouse	NOAEL 1,125 mg/kg/day	during organogenesis
Undecan-1-ol, ethoxylated		No data available			
Decamethylcyclopentasiloxane		No data available			

1,2-Benzisothiazol-3(2H)-one		No data available			

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Distillates (petroleum), hydrotreated light	Inhalation	central nervous system depression	May cause drowsiness or dizziness		NOAEL N/A	
Distillates (petroleum), hydrotreated light	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		Irritation Positive	
Dodecamethylcyclohexasiloxane			No data available			
Aluminium oxide	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		Irritation Positive	
Distillates (petroleum), solvent-refined heavy paraffinic	Inhalation	central nervous system depression	May cause drowsiness or dizziness		NOAEL N/A	
Distillates (petroleum), solvent-refined heavy paraffinic	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification		NOEL 1.51 mg/l	
2,2',2''-Nitrilotriethanol			No data available			
Undecan-1-ol, ethoxylated			No data available			
Decamethylcyclopentasiloxane			No data available			
1,2-Benzisothiazol-3(2H)-one			No data available			

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Distillates (petroleum), hydrotreated light	Dermal	bone, teeth, nails, and/or hair	Some positive data exist, but the data are not sufficient for classification		NOEL N/A	
Distillates (petroleum), hydrotreated light	Dermal	liver	Some positive data exist, but the data are not sufficient for classification		NOEL 1,000 mg/kg/day	

Distillates (petroleum), hydrotreated light	Inhalation	hematopoietic system	All data are negative		NOAEL 0.1 mg/l	
Dodecamethylcyclohexasiloxane	Ingestion	endocrine system | liver | respiratory system	Some positive data exist, but the data are not sufficient for classification		NOEL 330 mg/kg/day	
Distillates (petroleum), hydrotreated light	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification		NOEL 100 mg/kg/day	
Distillates (petroleum), hydrotreated light	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification		LOAEL 100 mg/kg	
Aluminium oxide	Inhalation	pneumoconiosis	May cause damage to organs though prolonged or repeated exposure		NOAEL N/A	
Aluminium oxide	Inhalation	pulmonary fibrosis	Some positive data exist, but the data are not sufficient for classification		NOAEL N/A	
Distillates (petroleum), solvent-refined heavy paraffinic	Dermal	skin | bone, teeth, nails, and/or hair	Some positive data exist, but the data are not sufficient for classification		LOEL 5,000 mg/kg/day	
Distillates (petroleum), solvent-refined heavy paraffinic	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification		NOEL 0.21 mg/l	
2,2',2"-Nitrilotriethanol	Dermal	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL 2,000 mg/kg/day	2 years
2,2',2"-Nitrilotriethanol	Dermal	liver	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 4,000 mg/kg/day	13 weeks
2,2',2"-Nitrilotriethanol	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 1,000 mg/kg/day	2 years
2,2',2"-Nitrilotriethanol	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Guinea pig	NOAEL 1,600 mg/kg/day	24 weeks
Undecan-1-ol, ethoxylated			No data available			

Decamethylcyclopentasiloxane			No data available			
1,2-Benzisothiazol-3(2H)-one			No data available			

Aspiration Hazard

Name	Value
Dodecamethylcyclohexasiloxane	Not an aspiration hazard
Distillates (petroleum), hydrotreated light	Aspiration hazard
Aluminium oxide	Not an aspiration hazard
Distillates (petroleum), solvent-refined heavy paraffinic	Aspiration hazard
2,2',2''-Nitrilotriethanol	Not an aspiration hazard
Undecan-1-ol, ethoxylated	Not an aspiration hazard
Decamethylcyclopentasiloxane	Not an aspiration hazard
1,2-Benzisothiazol-3(2H)-one	Not an 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

Acute aquatic hazard:
GHS Acute 3: Harmful to aquatic life.

Chronic aquatic hazard:
GHS Chronic 3: Harmful to aquatic life with long lasting effects.

No product test data available.

Material	CAS Nbr	Organism	Type	Exposure	Test endpoint	Test result
Aluminium oxide	1344-28-1	Water flea	Experimental	48 hours	EC50	>100 mg/l
Aluminium oxide	1344-28-1	Green algae	Experimental	72 hours	EC50	>100 mg/l
Undecan-1-ol, ethoxylated	34398-01-1	Green algae	Experimental	96 hours	EC50	2.91 mg/l
Undecan-1-ol, ethoxylated	34398-01-1	Water flea	Experimental	48 hours	EC50	2.1 mg/l
Undecan-1-ol, ethoxylated	34398-01-1	Fathead minnow	Experimental	96 hours	LC50	1.63 mg/l
2,2',2''-Nitrilotriethanol	102-71-6	Goldfish	Experimental	24 hours	LC50	5,000 mg/l
2,2',2''-Nitrilotriethanol	102-71-6	Green algae	Experimental	72 hours	EC50	216 mg/l

2,2',2"-Nitrilotriethanol	102-71-6	Water flea	Experimental	48 hours	EC50	609.98 mg/l
Aluminium oxide	1344-28-1	Green algae	Experimental	72 hours	NOEC	>100 mg/l
Dodecamethyl cyclohexasiloxane	540-97-6	Fathead minnow	Experimental	49 days	NOEC	4.4 micrograms/liter
Dodecamethyl cyclohexasiloxane	540-97-6	Water flea	Experimental	21 days	NOEC	0.0046 mg/l
Undecan-1-ol, ethoxylated	34398-01-1	Fathead minnow	Experimental	30 days	NOEC	0.73 mg/l
2,2',2"-Nitrilotriethanol	102-71-6	Water flea	Experimental	21 days	NOEC	16 mg/l
Distillates (petroleum), hydrotreated light	64742-47-8		No data available.			
Distillates (petroleum), solvent-refined heavy paraffinic	64741-88-4		No data available.			
Aluminium oxide	1344-28-1	Fish	Experimental	96 hours	LC50	>100 mg/l

12.2. Persistence and degradability

Material	**CAS Nbr**	**Test type**	**Duration**	**Study Type**	**Test result**	**Protocol**
Undecan-1-ol, ethoxylated	34398-01-1	Modeled Photolysis		Photolytic half-life (in air)	2.7 hours (t 1/2)	Other methods
Undecan-1-ol, ethoxylated	34398-01-1	Experimental Biodegradation	28 days	BOD	80 % weight	OECD 301D - Closed bottle test
Dodecamethyl cyclohexasiloxane	540-97-6	Estimated Hydrolysis		Hydrolytic half-life	>71 days (t 1/2)	Other methods
Dodecamethyl cyclohexasiloxane	540-97-6	Experimental Biodegradation	28 days	CO2 evolution	4.46 % weight	Other methods
2,2',2"-Nitrilotriethanol	102-71-6	Experimental Biodegradation	19 days	Dissolv. Organic Carbon Deplet	96 % weight	40CFR 796.3240-Mod. OECD Scree
Distillates (petroleum), solvent-refined heavy paraffinic	64741-88-4	No data available.	N/A	N/A	N/A	N/A
Aluminium oxide	1344-28-1	No data available.	N/A	N/A	N/A	N/A
Distillates (petroleum), hydrotreated light	64742-47-8	No data available.	N/A	N/A	N/A	N/A

12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Undecan-1-ol, ethoxylated	34398-01-1	Experimental BCF - Other	10 days	Bioaccumulation factor	309	Other methods
Dodecamethyl cyclohexasiloxane	540-97-6	Experimental BCF - Fathead Mi	49 days	Bioaccumulation factor	1160	OECD 305E - Bioaccumulation flow-through fish test
Dodecamethyl cyclohexasiloxane	540-97-6	Experimental Bioconcentration		Log Kow	5.86	Other methods
2,2',2"-Nitrilotriethanol	102-71-6	Experimental Bioaccumulation		Log Kow	-2.3	Estimated: Octanol-water partition coefficient
Distillates (petroleum), solvent-refined heavy paraffinic	64741-88-4	No data available.	N/A	N/A	N/A	N/A
Aluminium oxide	1344-28-1	No data available.	N/A	N/A	N/A	N/A
Distillates (petroleum), hydrotreated light	64742-47-8	No data available.	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

Ingredient	CAS Nbr	PBT/vPvB status
Decamethylcyclopentasiloxane	541-02-6	Meets REACH PBT criteria

12.6. 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. Dispose of waste product in a permitted industrial waste 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

GC-8010-3469-2, GC-8010-3470-0

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
2,2',2"-Nitrilotriethanol	102-71-6	Gr. 3: Not classifiable	International Agency for Research on Cancer

Global inventory status
Contact 3M for more information. The components of this material are in compliance with the provisions of the Korean Toxic Chemical 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 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 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. 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

EUH066	Repeated exposure may cause skin dryness or cracking.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

List of relevant R-phrases

R10	Flammable.
R22	Harmful if swallowed.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.

R43	May cause sensitisation by skin contact.
R50	Very toxic to aquatic organisms.
R52	Harmful to aquatic organisms.
R53	May cause long-term adverse effects in the aquatic environment.
R65	Harmful: May cause lung damage if swallowed.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

Revision information:
Revision Changes:
Section 16: List of relevant R phrase information was modified.
Section 3: Composition/ Information of ingredients table was modified.
Section 12: Component ecotoxicity information was modified.
Section 12: Persistence and Degradability information was modified.
Section 12:Bioccumulative potential information was modified.
Section 9: Flammability (solid, gas) information was modified.
Aspiration Hazard Table was modified.
Section 11: Acute Toxicity table was modified.
Carcinogenicity Table was modified.
Serious Eye Damage/Irritation Table was modified.
Germ Cell Mutagenicity Table was modified.
Skin Sensitisation Table was modified.
Respiratory Sensitisation Table was modified.
Reproductive Toxicity Table was modified.
Skin Corrosion/Irritation Table was modified.
Target Organs - Repeated Table was modified.
Target Organs - Single Table was modified.
Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material. was modified.
Label: CLP Classification - Header was added.
Label: CLP Classification was added.
Label: CLP Classification - Header was added.
Label: CLP Percent Unknown was added.
Label: CLP Environmental Hazard Statements was added.
Label: CLP Precautionary - Disposal was added.
Label: CLP Precautionary - Disposal - Header was added.
Label: Precautionary Statement - Header was added.
Label: CLP Supplemental Hazard Statements was added.
Label: CLP Supplemental Hazard Statements - Header was added.
Label: CLP Supplemental Information - Header was added.
Contains statement for sensitizers was added.
Contains statement for sensitizers was added.
Contains statement for sensitizers was added.
Section 2: Notes on labelling heading was added.
Section 15: Label remarks and EU Detergent was added.
CLP Remark(phrase) was added.
Section 2: 2.2 & 2.3. CLP REGULATION heading was added.
List of sensitizers was added.
Section 9: Flammability (solid, gas) information was added.

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

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