Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice (Safe Work Australia, December 2011)

SECTION 1: Identification

1.1. Product identifier
3M 51815, 51816, 51818 Fast Cut Plus Extreme

Product Identification Numbers
AS-0106-2345-7

1.2. Recommended use and restrictions on use

Recommended use
Fast Cut Plus Extreme

For Industrial or Professional use only.

1.3. Supplier's details
Address: 3M Australia - Building A, 1 Rivett Road, North Ryde NSW 2113
Telephone: 136 136
E Mail: productinfo.au@mmm.com
Website: www.3m.com.au

1.4. Emergency telephone number
EMERGENCY: 1800 097 146 (Australia only)

SECTION 2: Hazard identification

This product is classified as a hazardous chemical according to the Model Work Health and Safety Regulations, 2011, in accordance with applicable State and Territory legislation.

Refer to Section 14 of this Safety Data Sheets for product Dangerous Goods Classification.

2.1. Classification of the substance or mixture
Specific Target Organ Toxicity (repeated exposure): Category 2.

2.2. Label elements
The label elements below were prepared in accordance with the Code of Practice on Preparation of Safety Data Sheets for Hazardous Chemicals (Safe Work Australia, December 2011). This information may be different from the actual product label.

Signal word
Warning

Symbols
Health Hazard |

Pictograms

Hazard statements

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

Precautionary statements
General:

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.

Prevention:

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280E	Wear protective gloves.

Response:

P314	Get medical advice/attention if you feel unwell.

Disposal:

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

2.3. Other assigned/identified product hazards
Aspiration classification does not apply due to the viscosity of the product. Repeated exposure may cause skin dryness or cracking.

2.4. Other hazards which do not result in classification
Harmful to aquatic life with long lasting effects.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	CAS Nbr	% by Weight
Non-hazardous ingredient	Mixture	60 - 80
Aluminium oxide	1344-28-1	7 - 13
Aluminum Oxide (non-fibrous)	1344-28-1	7 - 13
Distillates (petroleum), hydrotreated light	64742-47-8	7 - 13
White mineral oil (petroleum)	8042-47-5	7 - 13
Glycerol	56-81-5	1 - 10
Naphtha (petroleum), hydrodesulfurized heavy	64742-82-1	5 - 10
Silicon dioxide	7631-86-9	1 - 10

Distillates (petroleum), hydrotreated middle	64742-46-7	1 - 5
Processed Castor Oil	Trade Secret	1 - 5
Sorbitan monooleate, ethoxylated	Trade Secret	1 - 5
Alcohols, C16-18 and C18-unsatd. unsaturated alkyl alcohol and SDA Reporting Number: 11-060-00. Consult SDA Substance Identification Procedure.	68002-94-8	1 - 3
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	1 - 3
1,2-Benzisothiazol-3(2H)-one	Trade Secret	0.01 - 0.05

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

Target organ effects following prolonged or repeated exposure. See Section 11 for additional details.

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

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
Use a fire fighting agent suitable for the surrounding fire.

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

Hazardous Decomposition or By-Products

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

5.3. Special protective actions for fire-fighters
No special protective actions for fire-fighters 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 vapors, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions
Avoid release to the environment.

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 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 in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Avoid breathing of dust created by cutting, sanding, grinding or machining. For industrial/occupational use only. Not for consumer sale or use. Keep out of reach of children. 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 away from oxidising agents.

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
Aluminium oxide	1344-28-1	Australia OELs	TWA(Inspirable dust)(8 hours):10 mg/m3	
Aluminum Oxide (non-fibrous)	1344-28-1	Australia OELs	TWA(Inspirable dust)(8 hours):10 mg/m3	
Aluminum, insoluble compounds	1344-28-1	ACGIH	TWA(respirable fraction):1 mg/m3	A4: Not class. as human carcin
CAS NO SEQ117921	1344-28-1	ACGIH	TWA(inhalable particulates):10 mg/m3	
CAS NO SEQ117922	1344-28-1	ACGIH	TWA(respirable particles):3 mg/m3	
CAS NO SEQ117921	56-81-5	ACGIH	TWA(inhalable particulates):10 mg/m3	
CAS NO SEQ117922	56-81-5	ACGIH	TWA(respirable particles):3 mg/m3	
Glycerol	56-81-5	Australia OELs	TWA(Inspirable dust)(8 hours):10 mg/m3	
Paraffin oil	64742-46-7	Australia OELs	TWA(as mist)(8 hours):5 mg/m3	
JET FUELS (NON-AEROSOL), AS TOTAL HYDROCARBON	64742-47-8	ACGIH	TWA(as total hydrocarbon vapour, non-aerosol):200	A3: Confirmed animal carcin., SKIN

VAPOUR			mg/m3	
Kerosine (petroleum)	64742-47-8	ACGIH	TWA(as total hydrocarbon vapour, non-aerosol):200 mg/m3	A3: Confirmed animal carcin., SKIN
Stoddard solvent	64742-82-1	ACGIH	TWA:100 ppm	
Stoddard solvent	64742-82-1	Australia OELs	TWA(8 hours):790 mg/m3	
JET FUELS (NON-AEROSOL), AS TOTAL HYDROCARBON VAPOUR	64742-94-5	ACGIH	TWA(as total hydrocarbon vapour, non-aerosol):200 mg/m3	A3: Confirmed animal carcin., SKIN
Kerosine (petroleum)	64742-94-5	ACGIH	TWA(as total hydrocarbon vapour, non-aerosol):200 mg/m3	A3: Confirmed animal carcin., SKIN
CAS NO SEQ117921	7631-86-9	ACGIH	TWA(inhalable particulates):10 mg/m3	
CAS NO SEQ117922	7631-86-9	ACGIH	TWA(respirable particles):3 mg/m3	
Silicon dioxide	7631-86-9	Australia OELs	TWA(respirable fraction)(8 hours):2 mg/m3	
Mineral oils (untreated and mildly treated)	8042-47-5	ACGIH	Limit value not established:	A2: Suspected human carcin., Cntrl all exposr-low as possib
MINERAL OILS, HIGHLY-REFINED OILS	8042-47-5	ACGIH	TWA(inhalable fraction):5 mg/m3	A4: Not class. as human carcin
Paraffin oil	8042-47-5	Australia OELs	TWA(as mist)(8 hours):5 mg/m3	

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
Australia OELs : Australia. Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment
CMRG : Chemical Manufacturer's Recommended Guidelines
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling
Sen: Sensitiser
Sk: Absorption through the skin may be a significant source of exposure.

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:
Safety glasses with side shields.

Select and use eye protection in accordance with AS/NZS 1336. Eye protection should comply with the performance specifications of AS/NZS 1337.

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: Polymer laminate

Select and use gloves according to AS/NZ 2161.

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

For questions about suitability for a specific application, consult with your respirator manufacturer.
Select and use respirators according to AS/NZS 1715. Respirators should comply with AS/NZS 1716 performance specifications. For information about respirators, call 3M on 1800 024 464.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Specific Physical Form:	Emulsion
Colour	White
Odour	Pine, Oily
Odour threshold	*No data available.*
pH	7.5 9 Units not available or not applicable. [*Details:*@20 C (+/- 1 C)]
Melting point/Freezing point	*Not applicable.*
Boiling point/Initial boiling point/Boiling range	*No data available.*
Flash point	No flash point
Evaporation rate	*Not applicable.*
Flammability (solid, gas)	Not applicable.
Flammable Limits(LEL)	*No data available.*
Flammable Limits(UEL)	*No data available.*
Vapour pressure	*No data available.*
Vapor Density and/or Relative Vapor Density	*No data available.*
Density	1.15 g/ml
Relative density	1.15 [*Ref Std:*WATER=1]
Water solubility	*No data available.*
Solubility- non-water	*No data available.*
Partition coefficient: n-octanol/water	*No data available.*
Autoignition temperature	*No data available.*
Decomposition temperature	*No data available.*
Viscosity/Kinematic Viscosity	20,000 - 70,000 mPa-s [*Test Method:*Brookfield]
Volatile organic compounds (VOC)	20 %
Percent volatile	20 %
VOC less H2O & exempt solvents	20 %

Nanoparticles
This material contains nanoparticles.

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. Conditions to avoid
High shear and high temperature conditions
Sparks and/or flames.

10.4. Possibility of hazardous reactions
Hazardous polymerisation will not occur.

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

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:

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.

Skin contact
Dermal Defatting Prolonged or repeated exposure may cause: Dermal Defatting: Signs/symptoms may include localized redness, itching, drying and cracking of skin. Dermal Defatting: Signs/symptoms may include localised redness, itching, drying and cracking of skin.

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.

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

Additional Health Effects:

Prolonged or repeated exposure may cause target organ effects:

Central neuropathy: Signs/symptoms may include irritability, memory impairment, personality changes, sleep disorders, and decreased ability to concentrate.

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-Vapour(4 hr)		No data available; calculated ATE >50 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Aluminium oxide	Dermal		LD50 estimated to be > 5,000 mg/kg
Aluminium oxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 2.3 mg/l
Aluminium oxide	Ingestion	Rat	LD50 > 5,000 mg/kg
Aluminum Oxide (non-fibrous)	Dermal		LD50 estimated to be > 5,000 mg/kg
Aluminum Oxide (non-fibrous)	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 2.3 mg/l
Aluminum Oxide (non-fibrous)	Ingestion	Rat	LD50 > 5,000 mg/kg
Distillates (petroleum), hydrotreated light	Inhalation-Vapour	Professional judgement	LC50 estimated to be 20 - 50 mg/l
Distillates (petroleum), hydrotreated light	Dermal	Rabbit	LD50 > 5,000 mg/kg
Distillates (petroleum), hydrotreated light	Ingestion	Rat	LD50 > 5,000 mg/kg
White mineral oil (petroleum)	Dermal	Rabbit	LD50 > 2,000 mg/kg
White mineral oil (petroleum)	Ingestion	Rat	LD50 > 5,000 mg/kg
Naphtha (petroleum), hydrodesulfurized heavy	Dermal	Rat	LD50 > 3,400 mg/kg
Naphtha (petroleum), hydrodesulfurized heavy	Inhalation-Vapour (4 hours)	Rat	LC50 > 16.2 mg/l
Naphtha (petroleum), hydrodesulfurized heavy	Ingestion	Rat	LD50 > 15,000 mg/kg
Silicon dioxide	Dermal	Rabbit	LD50 > 5,000 mg/kg
Silicon dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Silicon dioxide	Ingestion	Rat	LD50 > 5,110 mg/kg
Glycerol	Dermal	Rabbit	LD50 estimated to be > 5,000 mg/kg
Glycerol	Ingestion	Rat	LD50 > 5,000 mg/kg
Sorbitan monooleate, ethoxylated	Dermal	Not available	LD50 > 5,000 mg/kg
Sorbitan monooleate, ethoxylated	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5.1 mg/l
Sorbitan monooleate, ethoxylated	Ingestion	Rat	LD50 20,000 mg/kg
Solvent naphtha (petroleum), heavy aromatic	Inhalation-Vapour	Professional judgement	LC50 estimated to be 20 - 50 mg/l
Solvent naphtha (petroleum), heavy aromatic	Dermal	Rabbit	LD50 > 2,000 mg/kg
Solvent naphtha (petroleum), heavy aromatic	Ingestion	Rat	LD50 > 5,000 mg/kg
Distillates (petroleum), hydrotreated middle	Dermal	Rabbit	LD50 > 2,000 mg/kg
Distillates (petroleum), hydrotreated middle	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5.3 mg/l
Distillates (petroleum), hydrotreated middle	Ingestion	Rat	LD50 > 5,000 mg/kg

1,2-Benzisothiazol-3(2H)-one	Dermal	Rat	LD50 > 2,000 mg/kg
1,2-Benzisothiazol-3(2H)-one	Ingestion	Rat	LD50 454 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Aluminium oxide	Rabbit	No significant irritation
Aluminum Oxide (non-fibrous)	Rabbit	No significant irritation
Distillates (petroleum), hydrotreated light	Rabbit	Mild irritant
White mineral oil (petroleum)	Rabbit	No significant irritation
Naphtha (petroleum), hydrodesulfurized heavy	Rabbit	Minimal irritation
Silicon dioxide	Rabbit	No significant irritation
Glycerol	Rabbit	No significant irritation
Sorbitan monooleate, ethoxylated	Rabbit	No significant irritation
Solvent naphtha (petroleum), heavy aromatic	Rabbit	Minimal irritation
Distillates (petroleum), hydrotreated middle	Rabbit	No significant irritation
1,2-Benzisothiazol-3(2H)-one	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Aluminium oxide	Rabbit	No significant irritation
Aluminum Oxide (non-fibrous)	Rabbit	No significant irritation
Distillates (petroleum), hydrotreated light	Rabbit	Mild irritant
White mineral oil (petroleum)	Rabbit	Mild irritant
Naphtha (petroleum), hydrodesulfurized heavy	Rabbit	No significant irritation
Silicon dioxide	Rabbit	No significant irritation
Glycerol	Rabbit	No significant irritation
Sorbitan monooleate, ethoxylated	Rabbit	No significant irritation
Solvent naphtha (petroleum), heavy aromatic	Rabbit	Mild irritant
Distillates (petroleum), hydrotreated middle	Rabbit	Mild irritant
1,2-Benzisothiazol-3(2H)-one	Rabbit	Corrosive

Skin Sensitisation

Name	Species	Value
Distillates (petroleum), hydrotreated light	Guinea pig	Not classified
White mineral oil (petroleum)	Guinea pig	Not classified
Naphtha (petroleum), hydrodesulfurized heavy	Guinea pig	Not classified
Silicon dioxide	Human and animal	Not classified
Glycerol	Guinea pig	Not classified
Sorbitan monooleate, ethoxylated	Guinea pig	Not classified
Solvent naphtha (petroleum), heavy aromatic	Guinea pig	Not classified
Distillates (petroleum), hydrotreated middle	Guinea pig	Not classified
1,2-Benzisothiazol-3(2H)-one	Guinea pig	Sensitising

Respiratory Sensitisation

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

Germ Cell Mutagenicity

Name	Route	Value
Aluminium oxide	In Vitro	Not mutagenic
Aluminum Oxide (non-fibrous)	In Vitro	Not mutagenic
Distillates (petroleum), hydrotreated light	In Vitro	Not mutagenic

Distillates (petroleum), hydrotreated light	In vivo	Not mutagenic
White mineral oil (petroleum)	In Vitro	Not mutagenic
Silicon dioxide	In Vitro	Not mutagenic
Sorbitan monooleate, ethoxylated	In Vitro	Not mutagenic
Solvent naphtha (petroleum), heavy aromatic	In Vitro	Not mutagenic
Solvent naphtha (petroleum), heavy aromatic	In vivo	Not mutagenic
Distillates (petroleum), hydrotreated middle	In Vitro	Not mutagenic
Distillates (petroleum), hydrotreated middle	In vivo	Not mutagenic
1,2-Benzisothiazol-3(2H)-one	In vivo	Not mutagenic
1,2-Benzisothiazol-3(2H)-one	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Aluminium oxide	Inhalation	Rat	Not carcinogenic
Aluminum Oxide (non-fibrous)	Inhalation	Rat	Not carcinogenic
Distillates (petroleum), hydrotreated light	Not specified.	Not available	Not carcinogenic
White mineral oil (petroleum)	Dermal	Mouse	Not carcinogenic
White mineral oil (petroleum)	Inhalation	Multiple animal species	Not carcinogenic
Silicon dioxide	Not specified.	Mouse	Some positive data exist, but the data are not sufficient for classification
Glycerol	Ingestion	Mouse	Some positive data exist, but the data are not sufficient for classification
Sorbitan monooleate, ethoxylated	Ingestion	Rat	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Distillates (petroleum), hydrotreated light	Not specified.	Not classified for female reproduction	Rat	NOAEL Not available	1 generation
Distillates (petroleum), hydrotreated light	Not specified.	Not classified for male reproduction	Rat	NOAEL Not available	1 generation
Distillates (petroleum), hydrotreated light	Not specified.	Not classified for development	Rat	NOAEL Not available	1 generation
White mineral oil (petroleum)	Ingestion	Not classified for female reproduction	Rat	NOAEL 4,350 mg/kg/day	13 weeks
White mineral oil (petroleum)	Ingestion	Not classified for male reproduction	Rat	NOAEL 4,350 mg/kg/day	13 weeks
White mineral oil (petroleum)	Ingestion	Not classified for development	Rat	NOAEL 4,350 mg/kg/day	during gestation
Silicon dioxide	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Silicon dioxide	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Silicon dioxide	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
Glycerol	Ingestion	Not classified for female reproduction	Rat	NOAEL 2,000	2 generation

				mg/kg/day	
Glycerol	Ingestion	Not classified for male reproduction	Rat	NOAEL 2,000 mg/kg/day	2 generation
Glycerol	Ingestion	Not classified for development	Rat	NOAEL 2,000 mg/kg/day	2 generation
Sorbitan monooleate, ethoxylated	Ingestion	Not classified for female reproduction	Rat	NOAEL 6,666 mg/kg/day	3 generation
Sorbitan monooleate, ethoxylated	Ingestion	Not classified for male reproduction	Rat	NOAEL 6,666 mg/kg/day	3 generation
Sorbitan monooleate, ethoxylated	Ingestion	Not classified for development	Rat	NOAEL 5,000 mg/kg/day	during organogenesis
Solvent naphtha (petroleum), heavy aromatic	Not specified.	Not classified for female reproduction	Rat	NOAEL Not available	2 generation
Solvent naphtha (petroleum), heavy aromatic	Not specified.	Not classified for male reproduction	Rat	NOAEL Not available	2 generation
Solvent naphtha (petroleum), heavy aromatic	Not specified.	Not classified for development	Rat	NOAEL Not available	2 generation
Distillates (petroleum), hydrotreated middle	Not specified.	Not classified for female reproduction	Rat	NOAEL Not available	gestation into lactation
Distillates (petroleum), hydrotreated middle	Not specified.	Not classified for male reproduction	Rat	NOAEL Not available	28 days
Distillates (petroleum), hydrotreated middle	Not specified.	Not classified for development	Rat	NOAEL Not available	during gestation
1,2-Benzisothiazol-3(2H)-one	Ingestion	Not classified for female reproduction	Rat	NOAEL 112 mg/kg/day	2 generation
1,2-Benzisothiazol-3(2H)-one	Ingestion	Not classified for male reproduction	Rat	NOAEL 112 mg/kg/day	2 generation
1,2-Benzisothiazol-3(2H)-one	Ingestion	Not classified for development	Rat	NOAEL 112 mg/kg/day	2 generation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Naphtha (petroleum), hydrodesulfurized heavy	Inhalation	central nervous system depression	May cause drowsiness or dizziness	similar compounds	NOAEL not available	
Naphtha (petroleum), hydrodesulfurized heavy	Ingestion	central nervous system depression	May cause drowsiness or dizziness	similar compounds	NOAEL not available	
Solvent naphtha (petroleum), heavy aromatic	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
1,2-	Inhalation	respiratory	Some positive	similar health	NOAEL Not	

Benzisothiazol-3(2H)-one		irritation	data exist, but the data are not sufficient for classification	hazards	available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Aluminium oxide	Inhalation	pneumoconiosis	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Aluminium oxide	Inhalation	pulmonary fibrosis	Not classified	Human	NOAEL Not available	occupational exposure
Aluminum Oxide (non-fibrous)	Inhalation	pneumoconiosis	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Aluminum Oxide (non-fibrous)	Inhalation	pulmonary fibrosis	Not classified	Human	NOAEL Not available	occupational exposure
White mineral oil (petroleum)	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 1,381 mg/kg/day	90 days
White mineral oil (petroleum)	Ingestion	liver | immune system	Not classified	Rat	NOAEL 1,336 mg/kg/day	90 days
Naphtha (petroleum), hydrodesulfurized heavy	Inhalation	central nervous system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL not available	occupational exposure
Silicon dioxide	Inhalation	respiratory system | silicosis	Not classified	Human	NOAEL Not available	occupational exposure
Glycerol	Inhalation	respiratory system | heart | liver | kidney and/or bladder	Not classified	Rat	NOAEL 3.91 mg/l	14 days
Glycerol	Ingestion	endocrine system | hematopoietic system | liver | kidney and/or bladder	Not classified	Rat	NOAEL 10,000 mg/kg/day	2 years
Sorbitan monooleate, ethoxylated	Ingestion	heart | endocrine system | gastrointestinal tract | bone, teeth, nails, and/or hair | hematopoietic system | liver | immune system | nervous system | kidney and/or bladder | respiratory system	Not classified	Rat	NOAEL 4,132 mg/kg/day	90 days
1,2-Benzisothiazo	Ingestion	liver | hematopoietic	Not classified	Rat	NOAEL 322 mg/kg/day	90 days

l-3(2H)-one		system | eyes | kidney and/or bladder | respiratory system				
1,2-Benzisothiazol-3(2H)-one	Ingestion	heart | endocrine system | nervous system	Not classified	Rat	NOAEL 150 mg/kg/day	28 days

Aspiration Hazard

Name	Value
Distillates (petroleum), hydrotreated light	Aspiration hazard
White mineral oil (petroleum)	Aspiration hazard
Naphtha (petroleum), hydrodesulfurized heavy	Aspiration hazard
Solvent naphtha (petroleum), heavy aromatic	Aspiration hazard
Distillates (petroleum), hydrotreated middle	Aspiration hazard

Exposure Levels
Refer Section **8.1 Control Parameters** of this Safety Data Sheet.

Interactive Effects
Not determined.

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 Number	Organism	Type	Exposure	Test endpoint	Test result
Aluminium oxide	1344-28-1	Fish	Experimental	96 hours	LC50	>100 mg/l
Aluminium oxide	1344-28-1	Green Algae	Experimental	72 hours	EC50	>100 mg/l
Aluminium oxide	1344-28-1	Water flea	Experimental	48 hours	LC50	>100 mg/l
Aluminium oxide	1344-28-1	Green Algae	Experimental	72 hours	NOEC	>100 mg/l
Aluminum Oxide (non-fibrous)	1344-28-1		Experimental	96 hours	LC50	>100 mg/l
Aluminum Oxide (non-fibrous)	1344-28-1	Green algae	Experimental	72 hours	EC50	>100 mg/l

Aluminum Oxide (non-fibrous)	1344-28-1	Water flea	Experimental	48 hours	LC50	>100 mg/l
Aluminum Oxide (non-fibrous)	1344-28-1	Green algae	Experimental	72 hours	NOEC	>100 mg/l
Distillates (petroleum), hydrotreated light	64742-47-8	Green Algae	Experimental	72 hours	EL50	>1,000 mg/l
Distillates (petroleum), hydrotreated light	64742-47-8	Rainbow trout	Experimental	96 hours	LL50	>1,000 mg/l
Distillates (petroleum), hydrotreated light	64742-47-8	Water flea	Experimental	48 hours	EL50	>1,000 mg/l
Distillates (petroleum), hydrotreated light	64742-47-8	Green Algae	Experimental	72 hours	NOEL	1,000 mg/l
White mineral oil (petroleum)	8042-47-5	Water flea	Estimated	48 hours	EL50	>100 mg/l
White mineral oil (petroleum)	8042-47-5	Bluegill	Experimental	96 hours	LL50	>100 mg/l
White mineral oil (petroleum)	8042-47-5	Green algae	Estimated	72 hours	NOEL	100 mg/l
White mineral oil (petroleum)	8042-47-5	Water flea	Estimated	21 days	NOEL	>100 mg/l
Glycerol	56-81-5	Bacteria	Experimental	16 hours	NOEC	10,000 mg/l
Glycerol	56-81-5	Rainbow trout	Experimental	96 hours	LC50	54,000 mg/l
Glycerol	56-81-5	Water flea	Experimental	48 hours	LC50	1,955 mg/l
Naphtha (petroleum), hydrodesulfurized heavy	64742-82-1	Green Algae	Estimated	72 hours	EL50	4.1 mg/l
Naphtha (petroleum), hydrodesulfurized heavy	64742-82-1	Rainbow trout	Estimated	96 hours	LL50	30 mg/l
Naphtha (petroleum), hydrodesulfurized heavy	64742-82-1	Water flea	Estimated	48 hours	EL50	22 mg/l
Naphtha (petroleum), hydrodesulfurized heavy	64742-82-1	Green Algae	Estimated	72 hours	NOEL	0.76 mg/l
Naphtha (petroleum), hydrodesulfurized heavy	64742-82-1	Water flea	Estimated	21 days	EC10	0.879 mg/l
Silicon dioxide	7631-86-9		Data not available or			N/A

			insufficient for classification			
Sorbitan monooleate, ethoxylated	Trade Secret	Copepods	Estimated	48 hours	LL50	>10,000 mg/l
Sorbitan monooleate, ethoxylated	Trade Secret	Green Algae	Estimated	72 hours	EL50	58.84 mg/l
Sorbitan monooleate, ethoxylated	Trade Secret	Zebra Fish	Estimated	96 hours	LC50	>100 mg/l
Sorbitan monooleate, ethoxylated	Trade Secret	Green Algae	Estimated	72 hours	EC10	19.05 mg/l
Sorbitan monooleate, ethoxylated	Trade Secret	Water flea	Estimated	21 days	NOEL	10 mg/l
Distillates (petroleum), hydrotreated middle	64742-46-7	Green Algae	Estimated	72 hours	EL50	>1,000 mg/l
Distillates (petroleum), hydrotreated middle	64742-46-7	Rainbow trout	Estimated	96 hours	LL50	>87,556 mg/l
Distillates (petroleum), hydrotreated middle	64742-46-7	Water flea	Estimated	48 hours	LL50	>1,000 mg/l
Distillates (petroleum), hydrotreated middle	64742-46-7	Green Algae	Estimated	72 hours	NOEL	1,000 mg/l
Distillates (petroleum), hydrotreated middle	64742-46-7	Water flea	Estimated	21 days	NOEL	5 mg/l
Alcohols, C16-18 and C18-unsatd. unsaturated alkyl alcohol and SDA Reporting Number: 11-060-00. Consult SDA Substance Identification Procedure.	68002-94-8	Water flea	Experimental	48 hours	EC50	70 mg/l
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	Green Algae	Estimated	72 hours	EL50	1 mg/l
Solvent	64742-94-5	Rainbow trout	Estimated	96 hours	LL50	2 mg/l

naphtha (petroleum), heavy aromatic						
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	Water flea	Estimated	48 hours	EL50	3 mg/l
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	Green Algae	Estimated	72 hours	NOEL	1 mg/l
1,2-Benzisothiazol-3(2H)-one	Trade Secret	Green algae	Experimental	72 hours	EC50	0.11 mg/l
1,2-Benzisothiazol-3(2H)-one	Trade Secret	Pacific oyster	Experimental	48 hours	EC50	0.062 mg/l
1,2-Benzisothiazol-3(2H)-one	Trade Secret	Rainbow trout	Experimental	96 hours	LC50	1.6 mg/l
1,2-Benzisothiazol-3(2H)-one	Trade Secret	Water flea	Experimental	48 hours	EC50	2.9 mg/l
1,2-Benzisothiazol-3(2H)-one	Trade Secret	Green algae	Experimental	72 hours	NOEC	0.0403 mg/l
1,2-Benzisothiazol-3(2H)-one	Trade Secret	Bobwhite quail	Experimental	14 days	LD50	617 mg per kg of bodyweight

12.2. Persistence and degradability

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Aluminium oxide	1344-28-1	Data not available-insufficient	N/A	N/A	N/A	N/A
Aluminum Oxide (non-fibrous)	1344-28-1	Data not available-insufficient	N/A	N/A	N/A	N/A
Distillates (petroleum), hydrotreated light	64742-47-8	Estimated Biodegradation	28 days	BOD	69 % BOD/ThBOD	OECD 301F - Manometric respirometry
White mineral oil (petroleum)	8042-47-5	Experimental Biodegradation	28 days	CO2 evolution	0 % weight	OECD 301B - Modified sturm or CO2
Glycerol	56-81-5	Experimental Biodegradation	14 days	BOD	63 % BOD/ThBOD	OECD 301C - MITI test (I)
Naphtha (petroleum), hydrodesulfurized heavy	64742-82-1	Estimated Biodegradation	28 days	BOD	74.7 % BOD/ThBOD	OECD 301F - Manometric respirometry
Silicon dioxide	7631-86-9	Data not available-insufficient	N/A	N/A	N/A	N/A
Sorbitan	Trade Secret	Experimental	28 days	CO2 evolution	61 % weight	Non-standard method

monooleate, ethoxylated		Biodegradation				
Distillates (petroleum), hydrotreated middle	64742-46-7	Estimated Biodegradation	28 days	BOD	74 % BOD/ThBOD	OECD 306(Misc)-Biodegrad. Seaw
Alcohols, C16-18 and C18-unsatd. unsaturated alkyl alcohol and SDA Reporting Number: 11-060-00. Consult SDA Substance Identification Procedure.	68002-94-8	Experimental Biodegradation	28 days	BOD	87 % BOD/ThBOD	OECD 301D - Closed bottle test
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	Experimental Biodegradation	28 days	BOD	49.6 % BOD/ThBOD	OECD 301F - Manometric respirometry
1,2-Benzisothiazol-3(2H)-one	Trade Secret	Experimental Biodegradation	28 days	BOD	0 % BOD/ThBOD	OECD 301C - MITI test (I)

12.3 : Bioaccumulative potential

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Aluminium oxide	1344-28-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Aluminum Oxide (non-fibrous)	1344-28-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Distillates (petroleum), hydrotreated light	64742-47-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
White mineral oil (petroleum)	8042-47-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Glycerol	56-81-5	Experimental Bioconcentration		Log Kow	-1.76	Non-standard method
Naphtha (petroleum), hydrodesulfurized heavy	64742-82-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Silicon dioxide	7631-86-9	Data not available or	N/A	N/A	N/A	N/A

		insufficient for classification				
Sorbitan monooleate, ethoxylated	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Distillates (petroleum), hydrotreated middle	64742-46-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Alcohols, C16-18 and C18-unsatd. unsaturated alkyl alcohol and SDA Reporting Number: 11-060-00. Consult SDA Substance Identification Procedure.	68002-94-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
1,2-Benzisothiazol-3(2H)-one	Trade Secret	Experimental BCF - Bluegill	56 days	Bioaccumulation factor	6.62	similar to OECD 305
1,2-Benzisothiazol-3(2H)-one	Trade Secret	Experimental Bioconcentration		Log Kow	1.45	OECD 107 log Kow shke flsk mtd

12.4. Mobility in soil
Please contact manufacturer for more details

12.5 Other adverse effects
No information available.

SECTION 13: Disposal considerations

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

Incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes.

SECTION 14: Transport Information

Australian Dangerous Goods Code (ADG) - Road/Rail Transport
UN No.: Not applicable.
Proper shipping name: Not applicable.
Class/Division: Not applicable.

Sub Risk: Not applicable.
Packing Group: Not applicable.

Hazchem Code: Not applicable
IERG: Not applicable.

International Air Transport Association (IATA) - Air Transport
UN No.: Not applicable.
Proper shipping name: Not applicable.
Class/Division: Not applicable.
Sub Risk: Not applicable.
Packing Group: Not applicable.

International Maritime Dangerous Goods Code (IMDG)- Marine Transport
UN No.: Not applicable.
Proper shipping name: Not applicable.
Class/Division: Not applicable.
Sub Risk: Not applicable.
Packing Group: Not applicable.
Marine Pollutant: Not applicable.

SECTION 15: Regulatory information

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

Australian Inventory Status:
All components of this product are listed on or exempt from the Australian Inventory of Industrial Chemicals (AIIC). Conditions may apply prior to introduction for direct importers of this product, Please contact 3M Australia on 136 136 for further details.

Poison Schedule: This product is intended for Industrial or Professional Use only and therefore is not packaged and labelled in accordance with the requirements of the Standard for the Uniform Scheduling of Medicines and Poisons.

SECTION 16: Other information

Revision information:
Complete document review.

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 Safety 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.
Greenguard ® is a United States based program. The 'Low VOC' reference related to United States Federal and State regulations exemptions for some solvents.

3M Australia SDSs are available at www.3m.com.au