

Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the GHS guidelines & India Hazardous substances (Classification, Labeling & Packaging) Draft Rules 2011.

SECTION 1: Identification

1.1. Product identifier

3M Perfect-It III Fast Cut Plus Compound 50417 and 51299

Product Identification Numbers

GC-8010-0577-5 GC-8010-0692-2 GC-8010-0693-0 UU-0015-6471-3 UU-0108-7967-2

1.2. Recommended use and restrictions on use

Recommended use

Automotive., Polish for use with the appropriate compounding buffs and rotary polisher in the removal of finer sanding scratches during rectification of automotive refinish clear coat paint.

1.3. Supplier's details

Address: 3M India Limited, plot-48-51, Electronic city, Hosur road, Bangalore-560100

Telephone: 080-45543000, contact Product EHS team

E Mail: productehs.in@mmm.com
Website: http://solutions.3mindia.co.in

1.4. Emergency telephone number

080-45543000 (Contact hours: 8:00 AM to 5:00 PM)

SECTION 2: Hazard identification

Under MSIHC Rules, information is noted below on flammability, acute toxicity and explosivity relevant to this product. In line with international standards, information on other hazard classes and associated precautionary statements relevant to this product are included as well.

2.1. Classification of the substance or mixture

Flammable Liquid: Category 4.

Specific Target Organ Toxicity (repeated exposure): Category 1.

Acute Aquatic Toxicity: Category 3. Chronic Aquatic Toxicity: Category 3.

2.2. Label elements

Signal Word

DANGER! WARNING!

Symbols

Health Hazard |

Pictograms



HAZARD STATEMENTS:

H227 Combustible liquid.

H372 Causes damage to organs through prolonged or repeated exposure:

nervous system

H412 Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

General:

P102 Keep out of reach of children.

Prevention:

P210A Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking.

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

Response:

P370 + P378G In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry

chemical or carbon dioxide to extinguish.

Disposal:

P501 Dispose of contents/container in accordance with applicable

local/regional/national/international regulations.

2.3. Other hazards

Aspiration classification does not apply due to the viscosity of the product. Repeated exposure may cause skin dryness or cracking.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	CAS Nbr	% by Wt
Non-hazardous ingredients	Mixture	30 - 60
Aluminum Oxide (non-fibrous)	1344-28-1	10 - 30
Naphtha (petroleum), hydrodesulfurized	64742-82-1	10 - 20
heavy		
Distillates (petroleum), hydrotreated light	64742-47-8	7 - 13
Glycerol	56-81-5	1 - 5
Solvent naphtha (petroleum), heavy	64742-94-5	1 - 5
aromatic		
White mineral oil (petroleum)	8042-47-5	1 - 5
Sorbitan monooleate, ethoxylated	Trade Secret	1 - 5

Castor oil	8001-79-4	1 - 3
1,2-Benzisothiazol-3(2H)-one	2634-33-5	< 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.

Eve 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

No critical symptoms or effects. See Section 11.1, information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required

Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable Extinguishing media

In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide 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

SubstanceConditionHydrocarbons.During combustion.Carbon monoxide.During combustion.Carbon dioxide.During combustion.

5.3. Special protective actions 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 vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal 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

Keep out of reach of children. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. 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

Keep cool. Store away from heat. Store away from acids. Store away from oxidising agents. Store away from areas where product may come into contact with food or pharmaceuticals.

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
Aluminum, insoluble compounds	1344-28-1	ACGIH	TWA(respirable fraction):1	A4: Not class. as human
			mg/m3	carcin
Kerosine (petroleum)	64742-47-8	ACGIH	J (J	A3: Confirmed animal carcin., SKIN

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene Association

CMRG: Chemical Manufacturer's Recommended Guidelines

TWA: Time-Weighted-Average STEL: Short Term Exposure Limit

CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

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

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.

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

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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Specific Physical Form:	Slurry
Color	White
Odor	Paraffinic
Odour threshold	No data available.
рН	7.5 - 9
Melting point/Freezing point: NA	Not applicable.
Boiling point/Initial boiling point/Boiling range	> 65 °C
Flash point	>=65 °C [Test Method:Pensky-Martens Closed Cup]
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 [<i>Ref Std</i> :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	30 - 45 Pa-s
Volatile organic compounds (VOC)	20.88 %
Percent volatile	28 %
VOC less H2O & exempt solvents	26 %

Nanoparticles

This material does not contain 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 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

High shear and high temperature conditions Sparks and/or flames.

10.5 Incompatible materials

Alkali and alkaline earth metals. Strong oxidising agents.

10.6 Hazardous decomposition products

Substance

Condition

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

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

11.1 Information on Toxicological effects

Signs and Symptoms of Exposure

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

Inhalation

Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. 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. May cause additional health effects (see below).

Skin contact

Dermal Defatting: Signs/symptoms may include localised redness, itching, drying and cracking of skin.

Eve contact

Contact with the eyes during product use is not expected to result in significant irritation. 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. May cause additional health effects (see below).

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- Vapor(4 hr)		No data available; calculated ATE >50 mg/l
Overall product	Ingestion		No data available; calculated ATE >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
Naphtha (petroleum), hydrodesulfurized heavy	Dermal	Rat	LD50 > 3,400 mg/kg
Naphtha (petroleum), hydrodesulfurized heavy	Inhalation- Vapor (4 hours)	Rat	LC50 > 16.2 mg/l
Naphtha (petroleum), hydrodesulfurized heavy	Ingestion	Rat	LD50 > 15,000 mg/kg
Distillates (petroleum), hydrotreated light	Inhalation- Vapor	Professio nal judgeme nt	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
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- Vapor	Professio nal judgeme nt	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
Glycerol	Dermal	Rabbit	LD50 estimated to be > 5,000 mg/kg
Glycerol	Ingestion	Rat	LD50 > 5,000 mg/kg
Castor oil	Dermal		LD50 estimated to be > 5,000
Castor oil	Ingestion		LD50 estimated to be > 5,000
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

5Kiii C011 051011/1111ttt1011			
Name	Species	Value	
Aluminum Oxide (non-fibrous)	Rabbit	No significant irritation	
Naphtha (petroleum), hydrodesulfurized heavy	Rabbit	Minimal irritation	

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Distillates (petroleum), hydrotreated light	Rabbit Mild irritant	
White mineral oil (petroleum)		No significant irritation
Sorbitan monooleate, ethoxylated	Rabbit	No significant irritation
Solvent naphtha (petroleum), heavy aromatic	Rabbit	Minimal irritation
Glycerol	Rabbit	No significant irritation
Castor oil	Human	Minimal irritation
1,2-Benzisothiazol-3(2H)-one	Rabbit	No significant irritation

Serious Eye Damage/Irritation

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

Sensitization:

Skin Sensitisation

Name	Species	Value
Naphtha (petroleum), hydrodesulfurized heavy	Guinea pig	Not classified
Distillates (petroleum), hydrotreated light	Guinea pig	Not classified
White mineral oil (petroleum)	Guinea pig	Not classified
Sorbitan monooleate, ethoxylated	Guinea pig	Not classified
Solvent naphtha (petroleum), heavy aromatic	Guinea pig	Not classified
Glycerol	Guinea pig	Not classified
Castor oil	Human	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
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
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
Castor oil	In Vitro	Not mutagenic
Castor oil	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
Aluminum Oxide (non-fibrous)	Inhalation	Rat	Not carcinogenic
Distillates (petroleum), hydrotreated light	Not	Not	Not carcinogenic
	specified.	available	
White mineral oil (petroleum)	Dermal	Mouse	Not carcinogenic
White mineral oil (petroleum)	Inhalation	Multiple	Not carcinogenic
		animal	
		species	
Sorbitan monooleate, ethoxylated	Ingestion	Rat	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

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
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
Glycerol	Ingestion	Not classified for female reproduction	Rat	NOAEL 2,000 mg/kg/day	2 generation
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
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 compoun ds	NOAEL not available	
Naphtha (petroleum), hydrodesulfurized heavy	Ingestion	central nervous system depression	May cause drowsiness or dizziness	similar compoun ds	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-Benzisothiazol-3(2H)- one	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
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
Naphtha (petroleum), hydrodesulfurized heavy	Inhalation	central nervous system	Causes damage to organs through prolonged or repeated exposure	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
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
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
Castor oil	Ingestion	heart hematopoietic system liver	Not classified	Rat	NOAEL 4,800 mg/kg/day	13 weeks
Castor oil	Ingestion	kidney and/or bladder	Not classified	Mouse	NOAEL 13,000 mg/kg/day	13 weeks
1,2-Benzisothiazol-3(2H)- one	Ingestion	liver hematopoietic system eyes kidney and/or bladder respiratory system	Not classified	Rat	NOAEL 322 mg/kg/day	90 days
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
Naphtha (petroleum), hydrodesulfurized heavy	Aspiration hazard
Distillates (petroleum), hydrotreated light	Aspiration hazard
White mineral oil (petroleum)	Aspiration hazard
Solvent naphtha (petroleum), heavy aromatic	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
Aluminum	1344-28-1		Experimental	96 hours	LC50	>100 mg/l
Oxide (non-			1			
fibrous)						
Aluminum	1344-28-1	Green algae	Experimental	72 hours	EC50	>100 mg/l
Oxide (non-						
fibrous)						
Aluminum	1344-28-1	Water flea	Experimental	48 hours	LC50	>100 mg/l
Oxide (non-						
fibrous)						
Aluminum	1344-28-1	Green algae	Experimental	72 hours	NOEC	>100 mg/l
Oxide (non-						
fibrous)						
Naphtha	64742-82-1	Green Algae	Estimated	72 hours	Effect Level	4.1 mg/l
(petroleum),					50%	
hydrodesulfuriz						
ed heavy						
Naphtha	64742-82-1	Rainbow trout	Estimated	96 hours	Lethal Level	30 mg/l
(petroleum),					50%	
hydrodesulfuriz						
ed heavy						
Naphtha	64742-82-1	Water flea	Estimated	48 hours	Effect Level	22 mg/l
(petroleum),					50%	
hydrodesulfuriz						
ed heavy						
Naphtha	64742-82-1	Green Algae	Estimated	72 hours	No obs Effect	0.76 mg/l
(petroleum),					Level	

hydrodesulfuriz						
ed heavy						
Naphtha (petroleum), hydrodesulfuriz ed heavy	64742-82-1	Water flea	Estimated	21 days	Effect Concentration 10%	0.879 mg/l
Distillates (petroleum), hydrotreated light	64742-47-8	Green Algae	Experimental	72 hours	Effect Level 50%	>1,000 mg/l
Distillates (petroleum), hydrotreated light	64742-47-8	Rainbow trout	Experimental	96 hours	Lethal Level 50%	>1,000 mg/l
Distillates (petroleum), hydrotreated light	64742-47-8	Water flea	Experimental	48 hours	Effect Level 50%	>1,000 mg/l
Distillates (petroleum), hydrotreated light	64742-47-8	Green Algae	Experimental	72 hours	No obs Effect Level	1,000 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
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	Green Algae	Estimated	72 hours	Effect Level 50%	1 mg/l
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	Rainbow trout	Estimated	96 hours	Lethal Level 50%	2 mg/l
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	Water flea	Estimated	48 hours	Effect Level 50%	3 mg/l
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	Green Algae	Estimated	72 hours	No obs Effect Level	1 mg/l
Sorbitan monooleate, ethoxylated	Trade Secret	Copepods	Estimated	48 hours	Lethal Level 50%	>10,000 mg/l
Sorbitan monooleate, ethoxylated	Trade Secret	Green Algae	Estimated	72 hours	Effect Level 50%	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	Effect Concentration 10%	19.05 mg/l
Sorbitan monooleate,	Trade Secret	Water flea	Estimated	21 days	No obs Effect Level	10 mg/l

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ethoxylated						
White mineral oil (petroleum)	8042-47-5	Water flea	Estimated	48 hours	Effect Level 50%	>100 mg/l
White mineral oil (petroleum)	8042-47-5	Bluegill	Experimental	96 hours	Lethal Level 50%	>100 mg/l
White mineral oil (petroleum)	8042-47-5	Green algae	Estimated	72 hours	No obs Effect Level	>100 mg/l
White mineral oil (petroleum)	8042-47-5	Water flea	Estimated	21 days	No obs Effect Level	>100 mg/l
Castor oil	8001-79-4	Bacteria	Estimated	16 hours	NOEC	10,000 mg/l
Castor oil	8001-79-4	Zebra Fish	Estimated	96 hours	LC50	>100 mg/l
1,2- Benzisothiazol- 3(2H)-one	2634-33-5	Activated sludge	Experimental	3 hours	EC50	12.8 mg/l
1,2- Benzisothiazol- 3(2H)-one	2634-33-5	Green algae	Experimental	72 hours	EC50	0.11 mg/l
1,2- Benzisothiazol- 3(2H)-one	2634-33-5	Pacific oyster	Experimental	48 hours	EC50	0.062 mg/l
1,2- Benzisothiazol- 3(2H)-one	2634-33-5	Rainbow trout	Experimental	96 hours	LC50	1.6 mg/l
1,2- Benzisothiazol- 3(2H)-one	2634-33-5	Water flea	Experimental	48 hours	EC50	2.9 mg/l
1,2- Benzisothiazol- 3(2H)-one	2634-33-5	Green algae	Experimental	72 hours	NOEC	0.0403 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Aluminum	1344-28-1	Data not			N/A	
Oxide (non-		available-				
fibrous)		insufficient				
Naphtha (petroleum), hydrodesulfuriz ed heavy	64742-82-1	Estimated Biodegradation	28 days	BOD	74.7 % BOD/ThBOD	OECD 301F - Manometric respirometry
Distillates (petroleum), hydrotreated light	64742-47-8	Estimated Biodegradation	28 days	BOD	69 % BOD/ThBOD	OECD 301F - Manometric respirometry
Glycerol	56-81-5	Experimental Biodegradation	14 days	BOD	63 % BOD/ThBOD	OECD 301C - MITI test (I)
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	Experimental Biodegradation	28 days	BOD	49.6 % BOD/ThBOD	OECD 301F - Manometric respirometry
Sorbitan monooleate, ethoxylated	Trade Secret	Experimental Biodegradation	28 days	CO2 evolution	61 % weight	Non-standard method
White mineral	8042-47-5	Experimental	28 days	CO2 evolution	0 % weight	OECD 301B - Modified

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oil (petroleum)		Biodegradation				sturm or CO2
Castor oil	8001-79-4	Estimated	28 days	BOD	64 % weight	OECD 301D - Closed
		Biodegradation				bottle test
1,2-	2634-33-5	Experimental	28 days	BOD	0 %	OECD 301C - MITI
Benzisothiazol-		Biodegradation			BOD/ThBOD	test (I)
3(2H)-one						

12.3: Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Aluminum Oxide (non- fibrous)	1344-28-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Naphtha (petroleum), hydrodesulfuriz ed heavy	64742-82-1	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
Glycerol	56-81-5	Experimental Bioconcentrati on		Log Kow	-1.76	Non-standard method
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Sorbitan monooleate, ethoxylated	Trade Secret	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
Castor oil	8001-79-4	Estimated Bioconcentrati on		Bioaccumulatio n factor	7.4	Estimated: Bioconcentration factor
1,2- Benzisothiazol- 3(2H)-one	2634-33-5	Experimental BCF - Bluegill	56 days	Bioaccumulatio n factor	6.62	

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. 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.

SECTION 14: Transport Information

Not hazardous for transportation.

Air Transport (IATA)Regulations

UN No Not applicable

Proper Shipping Name Not applicable Hazard Classs/Division Not applicable Subsidiary Risk Not applicable

Packing Group: Not applicable

Marine Transport (IMDG)

UN No Not applicable

Proper Shipping Name Not applicable Hazard Classs/Division Not applicable

Subsidiary Risk Not applicable Packing Group: Not applicable

Environmental Hazards: Not applicable

SECTION 15: Regulatory information

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

Global inventory status

Contact 3M for more information. The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of 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. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory.

Applicable Environmental, Health and Safety Regulations

The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 Hazardous Waste(Management, Handling & Transboundary) Rules, 2008 Hazardous Chemicals (Classification, Packaging and Labelling Draft Rules), 2011

The following ingredients are listed as hazardous on Part II of Schedule I of the India Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) rules
None.

The following ingredients are classified as hazardous based on the criteria listed under Part I of Schedule I of the India Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) rules:

Product is classified as Flammable liquid.

SECTION 16: Other information

NFPA Hazard Classification

Health: 0 Flammability: 2 **Instability:** 0 Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Revision information:

Company Telephone information was modified.

Section 1: Emergency telephone information was modified.

Section 1: Product identification numbers information was added.

Section 1: Product name information was modified.

Section 2: Hazard - Other information was modified.

Label: GHS Classification information was modified.

Label: GHS Environmental Hazard Statements information was modified.

Label: GHS Precautionary - Prevention information was modified.

Label: GHS Precautionary - Response information was modified.

Label: GHS Precautionary - Storage information was deleted.

Label: GHS Target Organ Hazard Statement information was added.

Label: Graphic information was modified.

Label: Signal Word information was modified.

Label: Symbol information was modified.

Section 2: Ingredient table information was modified.

Section 4: First aid for skin contact information information was modified.

Section 04: Information on toxicological effects information was deleted.

Section 6: Accidental release clean-up information information was modified.

Section 7: Conditions safe storage information was modified.

Section 7: Precautions safe handling information information was modified.

Section 8: Occupational exposure limit table information was modified.

Section 09: Color information was added.

Section 09: Nanoparticle information was added.

Section 09: Odor information was added.

Sections 3 and 9: Odour, colour, grade information information was deleted.

Section 09: Percent Volatile information was added.

Section 9: Property description for optional properties information was deleted.

Section 9: Solubility (non-water) information was deleted.

Section 09: Solubility as text (non-water) information was added.

Section 09: Vapor Density Value information was added.

Section 9: Vapour density value information was deleted.

Section 9: Viscosity information information was deleted.

Section 09: Viscosity information was added.

Section 09: VOC Less H2O & Exempt Solvents information was added.

Section 09: Volatile Organic Compounds information was added.

Section 11: Acute Toxicity table information was modified.

Section 11: Aspiration Hazard Table information was modified.

Section 11: Carcinogenicity Table information was modified.

Section 11: Germ Cell Mutagenicity Table information was modified.

Section 11: Health Effects - Skin information information was modified.

Section 11: Prolonged or repeated exposure may cause standard phrases information was added.

Section 11: Reproductive Toxicity Table information was modified.

Section 11: Serious Eye Damage/Irritation Table information was modified.

Section 11: Single exposure may cause standard phrases information was deleted.

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- Section 11: Skin Corrosion/Irritation Table information was modified.
- Section 11: Skin Sensitization Table information was modified.
- Section 11: Target Organs Repeated Table information was modified.
- Section 11: Target Organs Single Table information was modified.
- Section 12: Acute aquatic hazard information information was modified.
- Section 12: Chronic aquatic hazard information information was modified.
- Section 12: Component ecotoxicity information information was modified.
- Section 12: Persistence and Degradability information information was modified.
- Section 12:Bioccumulative potential information information was modified.
- Section 16: NFPA hazard classification for health information was modified.
- Sectio 16: UK disclaimer information was deleted.

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

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