

Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the SS586 Specification for Hazard Communication for Hazardous Chemicals and Dangerous Goods.

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SECTION 1: Identification

1.1. Product identifier

3M[™] Perfect-It[™] Show Car Liquid Wax, 39026, 39826

1.2. Recommended use and restrictions on use

Recommended use

Automotive.

1.3. Supplier's details

Address:	3M Technologies (S) Pte Ltd,10 Ang Mo Kio Street 65, Singapore 569059
Telephone:	+65 6450 8888
Website:	www.3m.com.sg

1.4. Emergency telephone number

+65 6591 6601 (8.15am - 5.00pm, Monday - Friday)

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Flammable liquid: Category 3. Skin Corrosion/Irritation: Category 2. Specific Target Organ Toxicity (single exposure): Category 3.

2.2. Label elements SIGNAL WORD WARNING!

Symbols Flame |Exclamation mark |

Pictograms



HAZARD STATEMENTS H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
PRECAUTIONARY STATEMEN	TS
Prevention:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
P210	No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
Response:	If skin irritation occurs: Get medical advice/attention.
P332 + P313	In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry
P370 + P378	chemical or carbon dioxide to extinguish.
Storage: P405	Store locked up.
Disposal: P501	Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	CAS Nbr	% by Wt
Water	7732-18-5	40 - 70
Hydrotreated Light Petroleum Distillates	64742-47-8	10 - 30
Calcined Kaolin	92704-41-1	7 - 13
Medium Aliphatic Solvent Naphtha	64742-88-7	< 10
Propan-2-ol	67-63-0	0.5 - 5
Siloxanes and Silicones, Di-me, [[[3-[(2- Aminoethyl)Amino]Propyl]Dimethoxysilyl] oxy]-Terminated	71750-80-6	1 - 5
Stoddard solvent	8052-41-3	1 - 5
Siloxanes and Silicones, di-Me, hydroxy- terminated, reaction products with trimethoxymethylsilane and N-[3- (trimethoxysilyl)propyl]-1,2-ethanediamine	69430-37-1	0.5 - 1.5
Titanium dioxide	13463-67-7	< 0.5
Methanol	67-56-1	< 0.2

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

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

Skin contact

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

Eye contact

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

Central nervous system depression (headache, dizziness, drowsiness, incoordination, nausea, slurred speech, giddiness, and unconsciousness).

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

Not applicable

SECTION 5: Fire-fighting measures

5.1. 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

Substance	<u>Condition</u>
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. Cover spill area with a fire extinguishing foam that is resistant to polar solvents. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in

sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal 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 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. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. Use personal protective equipment (eg. gloves, respirators...) as required. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapor accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep cool. Keep container tightly closed. Protect from sunlight. 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	
Titanium dioxide	13463-67-7	ACGIH	TWA(Respirable nanoscale particles):0.2	A3: Confirmed animal carcin.	
			mg/m3;TWA(Respirable finescale particles):2.5 mg/m3		
Titanium dioxide	13463-67-7	Singapore PELs	TWA(8 hours):10 mg/m3		
Kerosine (petroleum)	64742-47-8	ACGIH	TWA(as total hydrocarbon vapor, non-aerosol):200 mg/m3	A3: Confirmed animal carcin., SKIN	
Kerosine (petroleum)	64742-88-7	ACGIH	TWA(as total hydrocarbon vapor, non-aerosol):200 mg/m3	A3: Confirmed animal carcin., SKIN	
Naphtha	64742-88-7	Singapore PELs	TWA(8 hours):1370 mg/m3(300 ppm)		
Methanol	67-56-1	ACGIH	TWA:200 ppm;STEL:250 ppm	Danger of cutaneous absorption	
Methanol	67-56-1	Singapore PELs	TWA(8 hours):262 mg/m3(200 ppm);STEL(15 minutes):328 mg/m3(250 ppm)		
Propan-2-ol	67-63-0	ACGIH	TWA:200 ppm;STEL:400 ppm	A4: Not class. as human carcin	
Propan-2-ol	67-63-0	Singapore PELs	TWA(8 hours):983 mg/m3(400 ppm);STEL(15		

			minutes):1230 mg/m3(500	
Stoddard solvent	8052-41-3	ACGIH	TWA:100 ppm	
Stoddard solvent	8052-41-3	Singapore PELs	TWA(8 hours):525	
			mg/m3(100 ppm)	

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

Singapore PELs : Singapore. Workplace Safety and Health (Permissible Exposure Levels of Toxic Substances) Order

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. Use explosion-proof ventilation equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eve/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: Fluoroelastomer 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.
Color	White
Odor	Little Odor
Odour threshold	No data available.
рН	8
Melting point/Freezing point	No data available.
Boiling point/Initial boiling point/Boiling range	100 °C

Flash point	56.7 °C [Test Method:Closed Cup]	
Evaporation rate	1 [<i>Ref Std</i> :WATER=1]	
Flammability	Flammable liquid: Category 3.	
Elementals Limited EL		
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 g/ml	
Relative density	1 [Ref Std:WATER=1]	
Water solubility	Moderate	
Solubility- non-water	No data available.	
Partition coefficient: n-octanol/water	No data available.	
Autoignition temperature	No data available.	
Decomposition temperature	No data available.	
Kinematic Viscosity	10,000 mm ² /sec	
Volatile organic compounds (VOC)	12.4 % weight [Test Method:calculated per CARB title 2]	
Volatile organic compounds (VOC)	124 g/l [Test Method: calculated SCAQMD rule 443.1]	
Percent volatile 70 - 90 % weight		
VOC less H2O & exempt solvents	502 g/l [Test Method:calculated SCAQMD rule 443.1]	
Molecular weight	Not applicable.	

Particle Characteristics

Not applicable.

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

Sparks and/or flames.

10.5 Incompatible materials Strong oxidising agents.

Strong acids.

10.6 Hazardous decomposition products

Substance

None known.

Condition

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. May cause additional health effects (see below).

Skin contact

Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, dryness, cracking, blistering, and pain.

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. May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:

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

Reproductive/Developmental Toxicity:

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

Toxicological Data

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

Acute Toxicity

Name	Route	Species	Value
Overall product	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
Calcined Kaolin	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 2.07 mg/l
Calcined Kaolin	Dermal	similar compoun ds	LD50 > 5,000 mg/kg
Calcined Kaolin	Ingestion	similar compoun ds	LD50 > 5,000 mg/kg
Medium Aliphatic Solvent Naphtha	Inhalation- Vapor		LC50 estimated to be 20 - 50 mg/l
Hydrotreated Light Petroleum Distillates	Inhalation-	Professio	LC50 estimated to be 20 - 50 mg/l

	Vapor	nal judgeme nt	
Medium Aliphatic Solvent Naphtha	Dermal	Rabbit	LD50 > 3,000 mg/kg
Hydrotreated Light Petroleum Distillates	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 3 mg/l
Hydrotreated Light Petroleum Distillates	Ingestion	Rat	LD50 > 5,000 mg/kg
Medium Aliphatic Solvent Naphtha	Ingestion	Rat	LD50 > 5,000 mg/kg
Hydrotreated Light Petroleum Distillates	Dermal	similar compoun ds	LD50 > 2,000 mg/kg
Siloxanes and Silicones, Di-me, [[[3-[(2- Aminoethyl)Amino]Propyl]Dimethoxysilyl]oxy]-Terminated	Ingestion		LD50 estimated to be 300 - 2,000 mg/kg
Stoddard solvent	Inhalation- Vapor		LC50 estimated to be 20 - 50 mg/l
Stoddard solvent	Dermal	Rabbit	LD50 > 3,000 mg/kg
Stoddard solvent	Ingestion	Rat	LD50 > 5,000 mg/kg
Propan-2-ol	Dermal	Rabbit	LD50 12,870 mg/kg
Propan-2-ol	Inhalation- Vapor (4 hours)	Rat	LC50 72.6 mg/l
Propan-2-ol	Ingestion	Rat	LD50 4,710 mg/kg
Siloxanes and Silicones, di-Me, hydroxy-terminated, reaction products with trimethoxymethylsilane and N-[3- (trimethoxysilyl)propyl]-1,2-ethanediamine	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
Siloxanes and Silicones, di-Me, hydroxy-terminated, reaction products with trimethoxymethylsilane and N-[3- (trimethoxysilyl)propyl]-1,2-ethanediamine	Ingestion	Rat	LD50 > 2,000 mg/kg
Titanium dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Titanium dioxide	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 6.82 mg/l
Titanium dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
Methanol	Dermal		LD50 estimated to be 1,000 - 2,000 mg/kg
Methanol	Inhalation- Vapor		LC50 estimated to be 10 - 20 mg/l
Methanol	Ingestion		LD50 estimated to be 50 - 300 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Calcined Kaolin	Rabbit	No significant irritation
Hydrotreated Light Petroleum Distillates	Rabbit	Mild irritant
Medium Aliphatic Solvent Naphtha	Rabbit	Irritant
Stoddard solvent	Rabbit	Irritant
Propan-2-ol	Multiple animal	No significant irritation
	species	
Titanium dioxide	Rabbit	No significant irritation
Methanol	Rabbit	Mild irritant

Serious Eye Damage/Irritation

Name	Species	Value
Calcined Kaolin	Rabbit	No significant irritation
Hydrotreated Light Petroleum Distillates	Rabbit	Mild irritant
Medium Aliphatic Solvent Naphtha	Rabbit	No significant irritation
Stoddard solvent	Rabbit	No significant irritation
Propan-2-ol	Rabbit	Severe irritant
Titanium dioxide	Rabbit	No significant irritation
Methanol	Rabbit	Moderate irritant

Sensitization:

Skin Sensitisation

Name	Species	Value
Hydrotreated Light Petroleum Distillates	Guinea	Not classified
	pig	
Medium Aliphatic Solvent Naphtha	Guinea	Not classified
	pig	
Stoddard solvent	Guinea	Not classified
	pig	
Propan-2-ol	Guinea	Not classified
	pig	
Titanium dioxide	Human	Not classified
	and	
	animal	
Methanol	Guinea	Not classified
	pig	

Respiratory Sensitisation

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

Name	Route	Value
Hydrotreated Light Petroleum Distillates	In Vitro	Not mutagenic
Medium Aliphatic Solvent Naphtha	In vivo	Not mutagenic
Medium Aliphatic Solvent Naphtha	In Vitro	Some positive data exist, but the data are not sufficient for classification
Stoddard solvent	In vivo	Not mutagenic
Stoddard solvent	In Vitro	Some positive data exist, but the data are not sufficient for classification
Propan-2-ol	In Vitro	Not mutagenic
Propan-2-ol	In vivo	Not mutagenic
Titanium dioxide	In Vitro	Not mutagenic
Titanium dioxide	In vivo	Not mutagenic
Methanol	In Vitro	Some positive data exist, but the data are not sufficient for classification
Methanol	In vivo	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Hydrotreated Light Petroleum Distillates	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Medium Aliphatic Solvent Naphtha	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Medium Aliphatic Solvent Naphtha	Inhalation	Human and animal	Some positive data exist, but the data are not sufficient for classification
Stoddard solvent	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Stoddard solvent	Inhalation	Human and animal	Some positive data exist, but the data are not sufficient for classification
Propan-2-ol	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
Titanium dioxide	Ingestion	Multiple animal species	Not carcinogenic
Titanium dioxide	Inhalation	Rat	Carcinogenic.
Methanol	Inhalation	Multiple animal species	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Medium Aliphatic Solvent Naphtha	Inhalation	Not classified for development	Rat	NOAEL 2.4 mg/l	during organogenesis
Stoddard solvent	Inhalation	Not classified for development	Rat	NOAEL 2.4 mg/l	during organogenesis
Propan-2-ol	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	2 generation
Propan-2-ol	Ingestion	Not classified for male reproduction	Rat	NOAEL 500 mg/kg/day	2 generation
Propan-2-ol	Ingestion	Not classified for development	Rat	NOAEL 400 mg/kg/day	during organogenesis
Propan-2-ol	Inhalation	Not classified for development	Rat	LOAEL 9 mg/l	during gestation
Methanol	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,600 mg/kg/day	21 days
Methanol	Ingestion	Toxic to development	Mouse	LOAEL 4,000 mg/kg/day	during organogenesis
Methanol	Inhalation	Toxic to development	Mouse	NOAEL 1.3 mg/l	during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route Target Organ(s)		Value	Species	Test result	Exposure Duration
Hydrotreated Light Petroleum Distillates	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Hydrotreated Light Petroleum Distillates	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Hydrotreated Light Petroleum Distillates	Ingestion	central nervous system depression			NOAEL Notavailable	
Medium Aliphatic Solvent Naphtha	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Medium Aliphatic Solvent Naphtha	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Medium Aliphatic Solvent Naphtha	Inhalation	nervous system	Not classified	Dog	NOAEL 6.5 mg/l	4 hours
Medium Aliphatic Solvent Naphtha	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professio nal judgeme nt	NOAEL Not available	
Stoddard solvent	Inhalation central nervous May cause drowsiness or dizziness		Human and animal	NOAEL Not available		
Stoddard solvent	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Stoddard solvent	Inhalation	nervous system	Not classified	Dog	NOAEL 6.5 mg/l	4 hours
Stoddard solvent	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professio nal judgeme	NOAEL Not available	

				nt		
Propan-2-ol	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Propan-2-ol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Propan-2-ol	Inhalation	auditory system	Not classified	Guinea pig	NOAEL 13.4 mg/l	24 hours
Propan-2-ol	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
Methanol	Inhalation	blindness	Causes damage to organs	Human	NOAEL Not available	occupational exposure
Methanol	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	not available
Methanol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	6 hours
Methanol	Ingestion	blindness	Causes damage to organs	Human	NOAEL Not available	poisoning and/or abuse
Methanol	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Calcined Kaolin	Inhalation	pneumoconiosis	Not classified	similar compoun ds	NOAEL not available	occupational exposure
Medium Aliphatic Solvent Naphtha	Inhalation	nervous system	Not classified	Rat	LOAEL 4.6 mg/l	6 months
Medium Aliphatic Solvent Naphtha	Inhalation	kidney and/or bladder	Not classified	Rat	LOAEL 1.9 mg/l	13 weeks
Medium Aliphatic Solvent Naphtha	Inhalation	respiratory system	Not classified	Multiple animal species	NOAEL 0.6 mg/l	90 days
Medium Aliphatic Solvent Naphtha	Inhalation	bone, teeth, nails, and/or hair blood liver muscles	Not classified	Rat	NOAEL 5.6 mg/l	12 weeks
Medium Aliphatic Solvent Naphtha	Inhalation	heart	Not classified	Multiple animal species	NOAEL 1.3 mg/l	90 days
Stoddard solvent	Inhalation	nervous system	Not classified	Rat	LOAEL 4.6 mg/l	6 months
Stoddard solvent	Inhalation	kidney and/or bladder	Not classified	Rat	LOAEL 1.9 mg/l	13 weeks
Stoddard solvent	Inhalation	respiratory system	Not classified	Multiple animal species	NOAEL 0.6 mg/l	90 days
Stoddard solvent	Inhalation	bone, teeth, nails, and/or hair blood liver muscles	Not classified	Rat	NOAEL 5.6 mg/l	12 weeks
Stoddard solvent	Inhalation	heart	Not classified	Multiple animal species	NOAEL 1.3 mg/l	90 days
Propan-2-ol	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 12.3 mg/l	24 months
Propan-2-ol	Inhalation	nervous system	Not classified	Rat	NOAEL 12 mg/l	13 weeks
Propan-2-ol	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 400 mg/kg/day	12 weeks
Titanium dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.01 mg/l	2 years
Titanium dioxide	Inhalation	pulmonary fibrosis	Not classified	Human	NOAEL Not available	occupational exposure
Methanol	Inhalation	liver	Not classified	Rat	NOAEL 6.55 mg/l	4 weeks

Methanol	Inhalation	respiratory system	Not classified	Rat	NOAEL 13.1 mg/l	6 weeks
Methanol	Ingestion	liver nervous system	Not classified	Rat	NOAEL 2,500 mg/kg/day	90 days

Aspiration Hazard

Name	Value
Hydrotreated Light Petroleum Distillates	Aspiration hazard
Medium Aliphatic Solvent Naphtha	Aspiration hazard
Stoddard solvent	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 2: Toxic to aquatic life.

Chronic aquatic hazard:

GHS Chronic 2: Toxic to aquatic life with long lasting effects.

No product test data available.

Material	CAS Nbr	Organism	Туре	Exposure	Test endpoint	Test result
Hydrotreated Light Petroleum Distillates	64742-47-8	Green algae	Estimated	72 hours	EC50	1 mg/l
Hydrotreated Light Petroleum Distillates	64742-47-8	Rainbow trout	Estimated	96 hours	LL50	2 mg/l
Hydrotreated Light Petroleum Distillates	64742-47-8	Water flea	Estimated	48 hours	EL50	1.4 mg/l
Hydrotreated Light Petroleum Distillates	64742-47-8	Green algae	Estimated	72 hours	NOEL	1 mg/l
Hydrotreated Light Petroleum Distillates	64742-47-8	Water flea	Estimated	21 days	NOEL	0.48 mg/l
Calcined Kaolin	92704-41-1	Bacteria	Estimated	16 hours	EC10	1,400 mg/l
Calcined Kaolin	92704-41-1	Green algae	Estimated	72 hours	EC50	2,500 mg/l
Calcined Kaolin	92704-41-1	Water flea	Estimated	48 hours	EC50	>100 mg/l
Calcined Kaolin	92704-41-1	Zebra Fish	Estimated	96 hours	LC50	>100 mg/l
Calcined Kaolin	92704-41-1	Green algae	Estimated	72 hours	EC10	41 mg/l
Calcined Kaolin	92704-41-1	Rainbow trout	Estimated	30 days	NOEC	100 mg/l
Medium Aliphatic Solvent Naphtha	64742-88-7	Green algae	Analogous Compound	72 hours	EL50	8.3 mg/l
Medium Aliphatic Solvent Naphtha	64742-88-7	Rainbow trout	Analogous Compound	96 hours	LL50	20 mg/l
Medium Aliphatic Solvent Naphtha	64742-88-7	Water flea	Analogous Compound	48 hours	EL50	1.4 mg/l

Medium Aliphatic	64742-88-7	Green algae	Analogous	72 hours	NOEL	4 mg/l
Solvent Naphtha	04742-00-7	-	Compound			
Medium Aliphatic Solvent Naphtha	64742-88-7	Water flea	Analogous Compound	21 days	NOEL	0.48 mg/l
Propan-2-ol	67-63-0	Bacteria	Experimental	16 hours	LOEC	1,050 mg/l
Propan-2-ol	67-63-0	Green algae	Experimental	72 hours	EC50	>1,000 mg/l
Propan-2-ol	67-63-0	Invertebrate	Experimental	24 hours	LC50	>10,000 mg/l
Propan-2-ol	67-63-0	Medaka	Experimental	96 hours	LC50	>100 mg/l
Propan-2-ol	67-63-0	Water flea	Experimental	48 hours	EC50	>1,000 mg/l
Propan-2-ol	67-63-0	Green algae	Experimental	72 hours	NOEC	1,000 mg/l
Propan-2-ol	67-63-0	Water flea	Experimental	21 days	NOEC	100 mg/l
Siloxanes and	71750-80-6	N/A	Data not available	N/A	N/A	N/A
Silicones, Di-me,			or insufficient for			
[[[3-[(2-			classification			
Aminoethyl)Amino						
]Propyl]Dimethoxy						
silyl]oxy]-						
Terminated						
Stoddard solvent	8052-41-3	Green algae	Estimated	96 hours	EL50	2.5 mg/l
Stoddard solvent	8052-41-3	Invertebrate	Estimated	96 hours	LC50	3.5 mg/l
Stoddard solvent	8052-41-3	Rainbow trout	Estimated	96 hours	LL50	41.4 mg/l
Stoddard solvent	8052-41-3	Green algae	Estimated	96 hours	NOEL	0.76 mg/l
Stoddard solvent	8052-41-3	Water flea	Estimated	21 days	NOEC	0.28 mg/l
Siloxanes and	69430-37-1	N/A	Data not available	N/A	N/A	N/A
Silicones, di-Me,			or insufficient for			
hydroxy-			classification			
terminated,						
reaction products						
with						
trimethoxymethylsi						
lane and N-[3-						
(trimethoxysilyl)pr						
opyl]-1,2-						
ethanediamine	12462 (7.7			2.1	NOEG	> 1.000 /l
Titanium dioxide	13463-67-7	Activated sludge	Experimental	3 hours	NOEC	>=1,000 mg/l >10,000 mg/l
Titanium dioxide	13463-67-7	Diatom	Experimental	72 hours	EC50	
Titanium dioxide	13463-67-7	Fathead minnow	Experimental	96 hours	LC50	>100 mg/l
Titanium dioxide	13463-67-7	Water flea	Experimental	48 hours	EC50	>100 mg/l
Titanium dioxide	13463-67-7	Diatom	Experimental	72 hours	NOEC	5,600 mg/l
Methanol	67-56-1	Algae or other	Experimental	96 hours	EC50	16.9 mg/l
	(7.56.1	aquatic plants		0.61	1.050	15.000 //
Methanol	67-56-1	Bay mussel	Experimental	96 hours	LC50	15,900 mg/l
Methanol	67-56-1	Bluegill	Experimental	96 hours	LC50	15,400 mg/l
Methanol	67-56-1	Green algae	Experimental	96 hours	ErC50	22,000 mg/l
Methanol	67-56-1	Sediment organism	Experimental	96 hours	LC50	54,890 mg/l
Methanol	67-56-1	Water flea	Experimental	48 hours	LC50	3,289 mg/l
Methanol	67-56-1	Green algae	Experimental	96 hours	NOEC	9.96 mg/l
Methanol	67-56-1	Medaka	Experimental	8.33 days	NOEC	158,000 mg/l
Methanol	67-56-1	Water flea	Experimental	21 days	NOEC	122 mg/l
Methanol	67-56-1	Activated sludge	Experimental	3 hours	IC50	>1,000 mg/l
Methanol	67-56-1	Barley	Experimental	14 days	EC50	15,492 mg/kg (Dry Weight)
Methanol	67-56-1	Redworm	Experimental	63 days	EC50	26,646 mg/kg (Dry Weight)
Methanol	67-56-1	Springtail	Experimental	28 days	EC50	5,683 mg/kg (Dry Weight)

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Hydrotreated Light Petroleum Distillates	64742-47-8	Data not available- insufficient	N/A	N/A	N/A	N/A
Calcined Kaolin	92704-41-1	Data not available-	N/A	N/A	N/A	N/A

		insufficient				
Medium Aliphatic Solvent Naphtha	64742-88-7	Experimental Biodegradation	28 days	CO2 evolution	55 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
Propan-2-ol	67-63-0	Experimental Biodegradation	14 days	BOD	86 %BOD/ThOD	OECD 301C - MITI test (I)
Siloxanes and Silicones, Di-me, [[[3-[(2- Aminoethyl)Amino]Propyl]Dimethoxy silyl]oxy]- Terminated	71750-80-6	Data not available- insufficient	N/A	N/A	N/A	N/A
Stoddard solvent	8052-41-3	Experimental Biodegradation	28 days	CO2 evolution	>63 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
Stoddard solvent	8052-41-3	Experimental Photolysis		Photolytic half-life (in air)	6.49 days (t 1/2)	
Siloxanes and Silicones, di-Me, hydroxy- terminated, reaction products with trimethoxymethylsi lane and N-[3- (trimethoxysilyl)pr opyl]-1,2- ethanediamine	69430-37-1	Data not available- insufficient	N/A	N/A	N/A	N/A
Titanium dioxide	13463-67-7	Data not available- insufficient	N/A	N/A	N/A	N/A
Methanol	67-56-1	Experimental Biodegradation	3 days	Percent degraded	91 %degraded	
Methanol	67-56-1	Experimental Biodegradation	14 days	BOD	92 %BOD/ThOD	OECD 301C - MITI test (I)
Methanol	67-56-1	Experimental Photolysis		Photolytic half-life (in air)	35 days (t 1/2)	
Methanol	67-56-1	Experimental Soil Metabolism Aerobic	5 days	CO2 evolution	53.4 %CO2 evolution/THCO2 evolution	

12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Hydrotreated Light Petroleum Distillates	64742-47-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Calcined Kaolin	92704-41-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Medium Aliphatic Solvent Naphtha	64742-88-7	Modeled Bioconcentration		Log Kow	6	
Propan-2-ol	67-63-0	Experimental Bioconcentration		Log Kow	0.05	
Siloxanes and Silicones, Di-me, [[[3-[(2- Aminoethyl)Amino]Propyl]Dimethoxy silyl]oxy]- Terminated	71750-80-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Stoddard solvent	8052-41-3	Estimated Bioconcentration		Log Kow	6.4	
Siloxanes and Silicones, di-Me, hydroxy-	69430-37-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

terminated, reaction products with trimethoxymethylsi						
lane and N-[3- (trimethoxysilyl)pr opyl]-1,2- ethanediamine						
Titanium dioxide	13463-67-7	Experimental BCF - Fish	42 days	Bioaccumulation factor	9.6	
Methanol	67-56-1	Experimental BCF - Fish	3 days	Bioaccumulation factor	<4.5	
Methanol	67-56-1	Experimental Bioconcentration		Log Kow	-0.77	

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. 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

International Regulations

UN No.: UN1866 UN Proper shipping name: RESIN SOLUTION

Transportation Class (IMO): 3-3 Flammable liquid Transportation Class (IATA): 3-3 Flammable liquid Other Dangerous Goods Descriptions (IMO): None assigned Other Dangerous Goods Descriptions (IATA): None assigned Packing Group: III Marine pollutant: None assigned

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

the new substance notification requirements of CEPA. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

This product may contain component(s) that are regulated by the following:

Workplace Safety and Health Act & Workplace Safety and Health (General Provisions) Regulations: this product is subject to SDS, labelling, PEL and other requirements in the Act/Regulations.

Fire Safety (Petroleum and Flammable Materials) Regulations: This product is subject to the requirements in the Regulations Sewerage & Drainage Act and Sewerage and Drainage (Trade Effluent) Regulations: This product is subject to the requirements in the act/regulation.

Environmental Protection and Management (Hazardous Substances) Regulations: This product is subject to the requirements in the Regulations

SECTION 16: Other information

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 Singapore SDSs are available at www.3m.com.sg