



Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the Malaysia Occupational Safety and Health (Chemical Classification, Labelling and Safety Data Sheets) Regulations 2013.

SECTION 1: Identification

1.1. Product identifier

3M™ Perfect-It™ Boat Wax 36112 36113

Product Identification Numbers

60-4550-8611-0

1.2. Recommended use and restrictions on use

Recommended use

Surface Refinishing Product., Marine

For Industrial or Professional use only

1.3. Supplier's details

ADDRESS:	3M Malaysia Sdn. Bhd., Level 8, Block F, Oasis Square, No.2, Jalan PJU 1A/7A, Ara Damansara 47301 Petaling, Jaya, Selangor
Telephone:	03-7884 2888
E Mail:	3mmyehsr@mmm.com
Website:	www.3M.com.my

1.4. Emergency telephone number

+60 03-7884 2888

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Not classified as hazardous according to Occupational Safety and Health (Chemical Classification, Labelling and Safety Data Sheets) Regulations 2013.

2.2. Label elements

Signal word

Not applicable

Symbols

Not applicable

Pictograms

Not applicable

2.3. Other hazards

Aspiration hazard classification does not apply due to the kinematic viscosity of the product.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt
Water	7732-18-5	50 - 70
Hydrotreated heavy naphtha (Petroleum)	64742-48-9	10 - 30
Hydrotreated light petroleum distillates	64742-47-8	3 - 7
Kaolin, calcined	92704-41-1	3 - 7
Poly(Dimethylsiloxane)	63148-62-9	1 - 5
Carnauba Wax	8015-86-9	1 - 5
White Mineral Oil (Petroleum)	8042-47-5	0.5 - 1.5
Synthetic Hydrocarbon Mixture	Trade Secret	0.5 - 1.5
Sorbitan Oleate	1338-43-8	0.5 - 1.5
Titanium Dioxide	13463-67-7	< 0.2
5-chloro-2-methyl-4-isothiazoline-3-one	26172-55-4	< 0.0015

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:

If exposed, flush eyes with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms develop, 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 ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products

Substance

Formaldehyde
Carbon monoxide
Carbon dioxide
Irritant Vapors or Gases

Condition

During Combustion
During Combustion
During Combustion
During Combustion

5.3. Special protective actions for fire-fighters

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. 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. Use personal protective equipment based on the results of an exposure assessment. Refer to Section 8 for PPE recommendations. If anticipated exposure resulting from an accidental release exceeds the protective capabilities of the PPE listed in Section 8, or are unknown, select PPE that offers an appropriate level of protection. Consider the physical and chemical hazards of the material when doing so. Examples of PPE ensembles for emergency response could include wearing bunker gear for a release of flammable material; wearing chemical protective clothing if the spilled material is a corrosive, a sensitizer, a significant dermal irritant, or can be absorbed through the skin; or donning a positive pressure supplied-air respirator for chemicals with inhalation hazards. For information regarding physical and health hazards, refer to sections 2 and 11 of the SDS.

6.2. Environmental precautions

Avoid release to the environment. For larger spills, cover drains and build dikes 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. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with detergent and water. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Do not use in a confined area with minimal air exchange. Keep out of reach of children. Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapors/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 oxidizing agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (gloves, respirators, etc.) as required.

7.2. Conditions for safe storage including any incompatibilities

Store away from acids. Store away from strong bases. Store away from oxidizing 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	C.A.S. No.	Agency	Limit type	Additional Comments
Particulates not Otherwise Classified (PNOC), Inhalable particulate	13463-67-7	Malaysia OELs	TWA (proposed)(respirable particles)(8 hours):3 mg/m ³ ;TWA (proposed)(Inhalable particulate)(8 hours):10 mg/m ³	
Titanium Dioxide	13463-67-7	ACGIH	TWA(Respirable nanoscale particles):0.2 mg/m ³ ;TWA(Respirable finescale particles):2.5 mg/m ³	A3: Confirmed animal carcin.
Titanium Dioxide	13463-67-7	Malaysia OELs	TWA(8 hours):10 mg/m ³	
Mineral oil, excluding metal working fluids, pure, highly and severely refined, inhalable fraction	64742-47-8	ACGIH	TWA(inhalable fraction):5 mg/m ³	A4: Not class. as human carcin
Mineral oil, excluding metal working fluids, pure, highly and severely refined, inhalable fraction	8042-47-5	ACGIH	TWA(inhalable fraction):5 mg/m ³	A4: Not class. as human carcin
Oil mist, mineral	8042-47-5	Malaysia OELs	TWA(as mist)(8 hours):5 mg/m ³	

ACGIH : American Conference of Governmental Industrial Hygienists

CMRG : Chemical Manufacturer's Recommended Guidelines

Malaysia OELs : Malaysia. Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations

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/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

None required.

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 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	Light Yellow
Odor	Light Banana
Odor threshold	No Data Available
pH	7.5 - 8.5
Melting point/Freezing point	Not Applicable
Boiling point/Initial boiling point/Boiling range	198.9 °C
Flash Point	Flash point > 93 °C (200 °F)
Evaporation rate	No Data Available
Flammability	Not Applicable
Flammable Limits(LEL)	No Data Available
Flammable Limits(UEL)	No Data Available
Vapor Pressure	No Data Available
Relative Vapor Density	No Data Available
Density	950 - 986 g/l
Relative Density	0.95 - 0.986 [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	17,895 mm ² /sec
Volatile Organic Compounds	14.8 % weight [Test Method:calculated per CARB title 2]
Percent volatile	85.6 % weight [Test Method:Estimated]
VOC Less H ₂ O & Exempt Solvents	503 g/l [Test Method:calculated SCAQMD rule 443.1]
Molecular weight	Not Applicable

Particle Characteristics	Not Applicable
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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 polymerization will not occur.

10.4. Conditions to avoid

Temperatures above the boiling point

10.5. Incompatible materials

Strong acids

Strong bases

Strong oxidizing agents

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 labeling, 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:

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

Eye Contact:

Contact with the eyes during product use is not expected to result in significant irritation.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Additional Health Effects:

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	Ingestion		No data available; calculated ATE >5,000 mg/kg
Hydrotreated heavy naphtha (Petroleum)	Dermal	similar compounds	LD50 > 2,200 mg/kg
Hydrotreated heavy naphtha (Petroleum)	Ingestion	similar compounds	LD50 > 15,000 mg/kg
Hydrotreated light petroleum distillates	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5.4 mg/l
Kaolin, calcined	Inhalation-Dust/Mist	Rat	LC50 > 2.07 mg/l

	(4 hours)		
Hydrotreated light petroleum distillates	Dermal	similar compounds	LD50 > 5,000 mg/kg
Hydrotreated light petroleum distillates	Ingestion	similar compounds	LD50 > 5,000 mg/kg
Kaolin, calcined	Dermal	similar compounds	LD50 > 5,000 mg/kg
Kaolin, calcined	Ingestion	similar compounds	LD50 > 5,000 mg/kg
Poly(Dimethylsiloxane)	Dermal	Multiple animal species	LD50 > 2,000 mg/kg
Poly(Dimethylsiloxane)	Ingestion	Rat	LD50 > 5,000 mg/kg
Carnauba Wax	Dermal		LD50 estimated to be > 5,000 mg/kg
Carnauba Wax	Ingestion	Rat	LD50 > 8,800 mg/kg
Sorbitan Oleate	Dermal		LD50 estimated to be > 5,000 mg/kg
White Mineral Oil (Petroleum)	Dermal	Rabbit	LD50 > 2,000 mg/kg
Sorbitan Oleate	Ingestion	Rat	LD50 > 39,800 mg/kg
White Mineral Oil (Petroleum)	Ingestion	Rat	LD50 > 5,000 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
5-chloro-2-methyl-4-isothiazoline-3-one	Dermal	Rabbit	LD50 87 mg/kg
5-chloro-2-methyl-4-isothiazoline-3-one	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.171 mg/l
5-chloro-2-methyl-4-isothiazoline-3-one	Ingestion	Rat	LD50 40 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Hydrotreated heavy naphtha (Petroleum)	similar compounds	Mild irritant
Hydrotreated light petroleum distillates	similar compounds	Mild irritant
Kaolin, calcined	Rabbit	No significant irritation
Poly(Dimethylsiloxane)	Human and animal	No significant irritation
Carnauba Wax	Professional judgement	No significant irritation
White Mineral Oil (Petroleum)	Rabbit	No significant irritation
Titanium Dioxide	Rabbit	No significant irritation
5-chloro-2-methyl-4-isothiazoline-3-one	Rabbit	Corrosive

Serious Eye Damage/Irritation

Name	Species	Value
Hydrotreated heavy naphtha (Petroleum)	similar compounds	No significant irritation
Hydrotreated light petroleum distillates	similar compounds	No significant irritation

Kaolin, calcined	Rabbit	No significant irritation
Poly(Dimethylsiloxane)	Rabbit	No significant irritation
Carnauba Wax	Professional judgement	No significant irritation
White Mineral Oil (Petroleum)	Rabbit	Mild irritant
Titanium Dioxide	Rabbit	No significant irritation
5-chloro-2-methyl-4-isothiazoline-3-one	Rabbit	Corrosive

Sensitization:

Skin Sensitization

Name	Species	Value
Hydrotreated heavy naphtha (Petroleum)	similar compounds	Not classified
Hydrotreated light petroleum distillates	similar compounds	Not classified
Poly(Dimethylsiloxane)	Human and animal	Not classified
White Mineral Oil (Petroleum)	Guinea pig	Not classified
Titanium Dioxide	Human and animal	Not classified
5-chloro-2-methyl-4-isothiazoline-3-one	Human and animal	Sensitizing

Photosensitization

Name	Species	Value
5-chloro-2-methyl-4-isothiazoline-3-one	Human and animal	Not sensitizing

Respiratory Sensitization

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

Germ Cell Mutagenicity

Name	Route	Value
Hydrotreated heavy naphtha (Petroleum)	In Vitro	Not mutagenic
Hydrotreated light petroleum distillates	In Vitro	Not mutagenic
Poly(Dimethylsiloxane)	In Vitro	Not mutagenic
Poly(Dimethylsiloxane)	In vivo	Not mutagenic
White Mineral Oil (Petroleum)	In Vitro	Not mutagenic
Titanium Dioxide	In Vitro	Not mutagenic
Titanium Dioxide	In vivo	Not mutagenic
5-chloro-2-methyl-4-isothiazoline-3-one	In vivo	Not mutagenic
5-chloro-2-methyl-4-isothiazoline-3-one	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Poly(Dimethylsiloxane)	Dermal	Mouse	Not carcinogenic
Poly(Dimethylsiloxane)	Ingestion	Mouse	Not carcinogenic
White Mineral Oil (Petroleum)	Dermal	Mouse	Not carcinogenic
White Mineral Oil (Petroleum)	Inhalation	Multiple	Not carcinogenic

		animal species	
Titanium Dioxide	Ingestion	Multiple animal species	Not carcinogenic
Titanium Dioxide	Inhalation	Rat	Carcinogenic
5-chloro-2-methyl-4-isothiazoline-3-one	Dermal	Mouse	Not carcinogenic
5-chloro-2-methyl-4-isothiazoline-3-one	Ingestion	Rat	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Poly(Dimethylsiloxane)	Ingestion	Not classified for development	Rat	NOAEL 3,800 mg/kg/day	during organogenesis
Poly(Dimethylsiloxane)	Dermal	Not classified for development	Rabbit	NOAEL 1,000 mg/kg/day	during organogenesis
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
5-chloro-2-methyl-4-isothiazoline-3-one	Ingestion	Not classified for female reproduction	Rat	NOAEL 10 mg/kg/day	2 generation
5-chloro-2-methyl-4-isothiazoline-3-one	Ingestion	Not classified for male reproduction	Rat	NOAEL 10 mg/kg/day	2 generation
5-chloro-2-methyl-4-isothiazoline-3-one	Ingestion	Not classified for development	Rat	NOAEL 15 mg/kg/day	during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Hydrotreated heavy naphtha (Petroleum)	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
5-chloro-2-methyl-4-isothiazoline-3-one	Inhalation	respiratory irritation	May cause respiratory irritation	similar health hazards	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Kaolin, calcined	Inhalation	pneumoconiosis	Not classified	similar compounds	NOAEL not available	occupational exposure
Poly(Dimethylsiloxane)	Ingestion	eyes	Not classified	Rat	NOAEL 10% in the diet	90 days
Poly(Dimethylsiloxane)	Ingestion	respiratory system	Not classified	Rat	NOAEL 1% in the diet	90 days
Poly(Dimethylsiloxane)	Ingestion	gastrointestinal tract	Not classified	Multiple animal species	NOAEL 10% in the diet	90 days
Poly(Dimethylsiloxane)	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 10% in the diet	90 days
Poly(Dimethylsiloxane)	Ingestion	heart	Not classified	Rat	NOAEL 1% in the diet	90 days

Poly(Dimethylsiloxane)	Ingestion	liver	Not classified	Rat	NOAEL 1% in the diet	90 days
Poly(Dimethylsiloxane)	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 1% in the diet	90 days
Poly(Dimethylsiloxane)	Ingestion	vascular system	Not classified	Rat	NOAEL 1% in the diet	90 days
White Mineral Oil (Petroleum)	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 1,381 mg/kg/day	90 days
White Mineral Oil (Petroleum)	Ingestion	liver	Not classified	Rat	NOAEL 1,336 mg/kg/day	90 days
White Mineral Oil (Petroleum)	Ingestion	immune system	Not classified	Rat	NOAEL 1,336 mg/kg/day	90 days
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

Aspiration Hazard

Name	Value
Hydrotreated heavy naphtha (Petroleum)	Aspiration hazard
Hydrotreated light petroleum distillates	Aspiration hazard
White Mineral Oil (Petroleum)	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 labeling, 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:**

Not acutely toxic to aquatic life by GHS criteria.

Chronic aquatic hazard:

Not chronically toxic to aquatic life by GHS criteria.

No product test data available

Material	Cas #	Organism	Type	Exposure	Test Endpoint	Test Result
Hydrotreated heavy naphtha (Petroleum)	64742-48-9	Green algae	Experimental	72 hours	EL50	>1,000 mg/l
Hydrotreated heavy naphtha (Petroleum)	64742-48-9	Rainbow Trout	Experimental	96 hours	LL50	>1,000 mg/l
Hydrotreated heavy naphtha (Petroleum)	64742-48-9	Water flea	Experimental	48 hours	EL50	>1,000 mg/l
Hydrotreated heavy naphtha (Petroleum)	64742-48-9	Green algae	Experimental	72 hours	NOEL	1,000 mg/l

Hydrotreated light petroleum distillates	64742-47-8	Green algae	Analogous Compound	72 hours	EL50	>1,000 mg/l
Hydrotreated light petroleum distillates	64742-47-8	Water flea	Analogous Compound	48 hours	EL50	>1,000 mg/l
Hydrotreated light petroleum distillates	64742-47-8	Rainbow Trout	Experimental	96 hours	LL50	>788,000 mg/l
Hydrotreated light petroleum distillates	64742-47-8	Scud	Experimental	96 hours	LL50	>10,000 mg/l
Hydrotreated light petroleum distillates	64742-47-8	Green algae	Analogous Compound	72 hours	NOEL	1,000 mg/l
Hydrotreated light petroleum distillates	64742-47-8	Water flea	Analogous Compound	21 days	NOEL	>1 mg/l
Kaolin, calcined	92704-41-1	Bacteria	Estimated	16 hours	EC10	1,400 mg/l
Kaolin, calcined	92704-41-1	Green algae	Estimated	72 hours	EC50	2,500 mg/l
Kaolin, calcined	92704-41-1	Water flea	Estimated	48 hours	EC50	>100 mg/l
Kaolin, calcined	92704-41-1	Zebra Fish	Estimated	96 hours	LC50	>100 mg/l
Kaolin, calcined	92704-41-1	Green algae	Estimated	72 hours	EC10	41 mg/l
Kaolin, calcined	92704-41-1	Rainbow Trout	Estimated	30 days	NOEC	100 mg/l
Carnauba Wax	8015-86-9	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Poly(Dimethylsiloxane)	63148-62-9	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Sorbitan Oleate	1338-43-8	Rainbow Trout	Experimental	96 hours	LC50	>100 mg/l
White Mineral Oil (Petroleum)	8042-47-5	Water flea	Analogous Compound	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	Analogous Compound	72 hours	NOEL	100 mg/l
White Mineral Oil (Petroleum)	8042-47-5	Water flea	Analogous Compound	21 days	NOEL	>100 mg/l
Titanium Dioxide	13463-67-7	Activated sludge	Experimental	3 hours	NOEC	>=1,000 mg/l
Titanium Dioxide	13463-67-7	Diatom	Experimental	72 hours	EC50	>10,000 mg/l
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
5-chloro-2-methyl-4-isothiazoline-3-one	26172-55-4	Diatom	Experimental	72 hours	ErC50	0.007 mg/l
5-chloro-2-methyl-4-isothiazoline-3-one	26172-55-4	Green algae	Experimental	72 hours	ErC50	0.027 mg/l
5-chloro-2-methyl-4-isothiazoline-3-one	26172-55-4	Mysid Shrimp	Experimental	96 hours	LC50	0.282 mg/l
5-chloro-2-methyl-4-isothiazoline-3-one	26172-55-4	Rainbow Trout	Experimental	96 hours	LC50	0.19 mg/l
5-chloro-2-methyl-4-isothiazoline-3-one	26172-55-4	Sheepshead Minnow	Experimental	96 hours	LC50	0.3 mg/l
5-chloro-2-methyl-4-isothiazoline-3-one	26172-55-4	Water flea	Experimental	48 hours	EC50	0.16 mg/l
5-chloro-2-methyl-4-isothiazoline-3-one	26172-55-4	Diatom	Experimental	48 hours	NOEC	0.00049 mg/l
5-chloro-2-methyl-4-isothiazoline-3-one	26172-55-4	Fathead Minnow	Experimental	36 days	NOEC	0.02 mg/l

one						
5-chloro-2-methyl-4-isothiazoline-3-one	26172-55-4	Green algae	Experimental	72 hours	NOEC	0.004 mg/l
5-chloro-2-methyl-4-isothiazoline-3-one	26172-55-4	Water flea	Experimental	21 days	NOEC	0.0111 mg/l

12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Hydrotreated heavy naphtha (Petroleum)	64742-48-9	Experimental Biodegradation	28 days	Biological Oxygen Demand	31 %BOD/ThOD	OECD 301F - Manometric Respiro
Hydrotreated light petroleum distillates	64742-47-8	Experimental Biodegradation	28 days	Biological Oxygen Demand	22 %BOD/ThOD	OECD 301F - Manometric Respiro
Kaolin, calcined	92704-41-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Carnauba Wax	8015-86-9	Modeled Biodegradation	28 days	Carbon dioxide evolution	96 %CO ₂ evolution/THCO ₂ evolution	Catalogic™
Poly(Dimethylsiloxane)	63148-62-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Sorbitan Oleate	1338-43-8	Modeled Biodegradation	28 days	Biological Oxygen Demand	68 %BOD/ThOD	Catalogic™
White Mineral Oil (Petroleum)	8042-47-5	Experimental Biodegradation	28 days	Carbon dioxide evolution	0 %CO ₂ evolution/THCO ₂ evolution	OECD 301B - Mod. Sturm or CO ₂
Titanium Dioxide	13463-67-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
5-chloro-2-methyl-4-isothiazoline-3-one	26172-55-4	Experimental Biodegradation	29 days	Carbon dioxide evolution	62 %CO ₂ evolution/THCO ₂ evolution (does not pass 10-day window)	OECD 301B - Mod. Sturm or CO ₂
5-chloro-2-methyl-4-isothiazoline-3-one	26172-55-4	Modeled Photolysis		Photolytic half-life (in air)	1.2 days (t 1/2)	Episuite™
5-chloro-2-methyl-4-isothiazoline-3-one	26172-55-4	Experimental Hydrolysis		Hydrolytic half-life (pH 7)	>60 days (t 1/2)	OECD 111 Hydrolysis function of pH

12.3. Bioaccumulative potential

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Hydrotreated heavy naphtha (Petroleum)	64742-48-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Hydrotreated light petroleum distillates	64742-47-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Kaolin, calcined	92704-41-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Carnauba Wax	8015-86-9	Modeled Bioconcentration		Bioaccumulation Factor	7.4	Catalogic™
Poly(Dimethylsiloxane)	63148-62-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Sorbitan Oleate	1338-43-8	Modeled Bioconcentration		Bioaccumulation Factor	7.8	Catalogic™

White Mineral Oil (Petroleum)	8042-47-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Titanium Dioxide	13463-67-7	Experimental BCF - Fish	42 days	Bioaccumulation Factor	9.6	
5-chloro-2-methyl-4-isothiazoline-3-one	26172-55-4	Analogous Compound BCF - Fish	42 days	Bioaccumulation Factor	54	OECD305-Bioconcentration

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

According to the Environmental Quality (Scheduled Wastes) Regulations 2005, scheduled waste has to be sent to a prescribed premise for recycling, treatment or disposal. Please approach Kualiti Alam for proper schedule waste classification and disposal.

SECTION 14: Transport Information

Not hazardous for transportation.

Marine Transport (IMDG)

UN Number:None assigned.

Proper Shipping Name:None assigned.

Technical Name:None assigned.

Hazard Class/Division:None assigned.

Subsidiary Risk:None assigned.

Packing Group:None assigned.

Limited Quantity:None assigned.

Marine Pollutant: None assigned.

Marine Pollutant Technical Name: None assigned.

Other Dangerous Goods Descriptions:

None assigned.

Air Transport (IATA)

UN Number:None assigned.

Proper Shipping Name:None assigned.

Technical Name:None assigned.

Hazard Class/Division:None assigned.

Subsidiary Risk:None assigned.

Packing Group:None assigned.

Limited Quantity:None assigned.

Marine Pollutant: None assigned.

Marine Pollutant Technical Name: None assigned.

Other Dangerous Goods Descriptions:

None assigned.

Transportation classifications are provided as a customer service. As for shipping, YOU remain responsible for complying

with all applicable laws and regulations, including proper transportation classification and packaging. 3M's transportation classifications are based on product formulation, packaging, 3M policies and 3M's understanding of applicable current regulations. 3M does not guarantee the accuracy of this classification information. This information applies only to transportation classification and not the packaging, labeling or marking requirements. The above information is only for reference. If you are shipping by air or ocean, YOU are advised to check & meet applicable regulatory requirements.

SECTION 15: Regulatory information

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

Global inventory status

Contact 3M for more information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. 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. 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.

SECTION 16: Other information

DISCLAIMER: The information in this Safety Data Sheet (SDS) 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 SDS or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own evaluation to satisfy themselves as to the suitability of the product for their own intended applications. In addition, this SDS is being provided to convey health and safety information. If you are the importer of record of this product into Malaysia, you are responsible for all applicable regulatory requirements, including, but not limited to, product registrations/notifications, substance volume tracking, and potential substance registration/notification.

3M Malaysia SDSs are available at www.3M.com.my