



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™ Hand Glaze, 05989, 05990, 06000, 39007

Product Identification Numbers

60-4550-7156-7	60-4550-7157-5	60-4550-7158-3	60-4550-7159-1	LS-0000-0180-3
TM-0000-3528-6	XA-0092-0722-7	XA-0092-1024-7	XS-0024-0006-6	XS-0024-0007-4
XS-0024-0032-2	XS-0414-1969-7	XT-0033-1930-5		

1.2. Recommended use and restrictions on use

Recommended use

Automotive, Remove defects from painted surfaces.

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

Skin Sensitizer: Category 1.

Chronic Aquatic Toxicity: Category 3.

2.2. Label elements

Signal word

Warning

Symbols

Exclamation mark |

Pictograms**Hazard Statements**

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements**General:**

P102 Keep out of reach of children.

P101 If medical advice is needed, have product container or label at hand.

Prevention:

P280E Wear protective gloves.

Response:

P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

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

Ingredient	C.A.S. No.	% by Wt
Water	7732-18-5	60 - 100
HYDROTREATED LIGHT PETROLEUM DISTILLATES	64742-47-8	0 - 10
Medium Aliphatic Solvent Naphtha	64742-88-7	< 10
C10 ALKANES AND CYCLOALKANES	Mixture	1 - 10
White Mineral Oil (Petroleum)	8042-47-5	3 - 7
Glycerin	56-81-5	1 - 5
Kaolin, calcined	92704-41-1	1 - 5
C11 ALKANES AND CYCLOALKANES	Mixture	0 - 5
C9 CYCLOALKANES	Mixture	0 - 5
NJ TSR 54004100000-9915P - PROCESSED CASTOR OIL	Mixture	1 - 5
NONANE, ALL ISOMERS	Mixture	0 - 5
1,2-BENZISOTHIAZOLIN-3-ONE	2634-33-5	< 1
Lead	7439-92-1	< 1
Titanium dioxide	13463-67-7	< 1

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

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 carbon dioxide or dry chemical extinguisher to extinguish.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products

Substance

Hydrocarbons
Carbon monoxide
Carbon dioxide
Oxides of Nitrogen

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. 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 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 an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. 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. 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. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Use personal protective equipment (gloves, respirators, etc.) as required.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place.

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
DUST, INERT OR NUISANCE	13463-67-7	Malaysia OELs	TWA (proposed)(Inhalable particulate)(8 hours):10 mg/m ³ ;TWA (proposed)(respirable particles)(8 hours):3 mg/m ³	
Titanium dioxide	13463-67-7	ACGIH	TWA:10 mg/m ³	A4: Not class. as human carcin
Titanium dioxide	13463-67-7	Malaysia OELs	TWA(8 hours):10 mg/m ³	
Glycerin	56-81-5	Malaysia OELs	TWA(as mist)(8 hours):10 mg/m ³	
Kerosine (petroleum)	64742-47-8	ACGIH	TWA(as total hydrocarbon vapor, non-aerosol):200 mg/m ³	A3: Confirmed animal carcin., SKIN
Kerosine (petroleum)	64742-88-7	ACGIH	TWA(as total hydrocarbon vapor, non-aerosol):200 mg/m ³	A3: Confirmed animal carcin., SKIN
Naphtha	64742-88-7	Malaysia OELs	TWA(8 hours):1590 mg/m ³ (400 ppm)	
Lead	7439-92-1	ACGIH	TWA(as Pb):0.05 mg/m ³	A3: Confirmed animal carcin.
Lead	7439-92-1	Malaysia OELs	TWA(as Pb)(8 hours):0.05 mg/m ³	
MINERAL OILS, HIGHLY-REFINED OILS	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.

Gloves made from the following material(s) are recommended: Neoprene

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 vapors and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance/Odor	Light orange-brown. Faint sweet odor.
Odor threshold	No Data Available
pH	8 - 8.4
Melting point/Freezing point	No Data Available
Boiling point/Initial boiling point/Boiling range	100 °C
Flash Point	Flash point > 93 °C (200 °F)
Evaporation rate	No Data Available
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	No Data Available
Flammable Limits(UEL)	No Data Available
Vapor Pressure	2,399.8 Pa
Vapor Density	No Data Available
Density	0.982 - 1.006 g/ml
Relative Density	0.982 - 1.006 [Ref Std: WATER=1]
Water solubility	No Data Available
Solubility- non-water	No Data Available
Partition coefficient: n-octanol/ water	No Data Available
Autoignition temperature	No Data Available
Decomposition temperature	No Data Available
Viscosity	4,000 - 7,000 mPa-s
Molecular weight	No Data Available
Volatile Organic Compounds	9.1 % weight [Test Method:calculated per CARB title 2]

Volatile Organic Compounds	91 g/l [<i>Test Method</i> :calculated SCAQMD rule 443.1]
Percent volatile	84.1 %
VOC Less H2O & Exempt Solvents	373 g/l [<i>Test Method</i> :calculated SCAQMD rule 443.1]

SECTION 10: Stability and reactivity

10.1. Reactivity

This material is considered to be non reactive under normal use conditions.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
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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 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.

Skin Contact:

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness. Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

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	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
Medium Aliphatic Solvent Naphtha	Inhalation-Vapor		LC50 estimated to be 20 - 50 mg/l
HYDROTREATED LIGHT PETROLEUM DISTILLATES	Dermal	Rabbit	LD50 > 3,160 mg/kg
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
White Mineral Oil (Petroleum)	Dermal	Rabbit	LD50 > 2,000 mg/kg
White Mineral Oil (Petroleum)	Ingestion	Rat	LD50 > 5,000 mg/kg
Kaolin, calcined	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
Kaolin, calcined	Ingestion	Rat	LD50 > 2,000 mg/kg
Glycerin	Dermal	Rabbit	LD50 estimated to be > 5,000 mg/kg
Glycerin	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 > 5.09 mg/l
Titanium dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
Lead	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
HYDROTREATED LIGHT PETROLEUM DISTILLATES	Rabbit	Mild irritant
Medium Aliphatic Solvent Naphtha	Rabbit	Irritant
White Mineral Oil (Petroleum)	Rabbit	No significant irritation
Glycerin	Rabbit	No significant irritation
Titanium dioxide	Rabbit	No significant irritation
Lead	similar compounds	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
HYDROTREATED LIGHT PETROLEUM DISTILLATES	Rabbit	Mild irritant
Medium Aliphatic Solvent Naphtha	Rabbit	No significant irritation
White Mineral Oil (Petroleum)	Rabbit	Mild irritant
Glycerin	Rabbit	No significant irritation
Titanium dioxide	Rabbit	No significant irritation
Lead	similar	Mild irritant

	compounds	
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Skin Sensitization

Name	Species	Value
HYDROTREATED LIGHT PETROLEUM DISTILLATES	Guinea pig	Not classified
Medium Aliphatic Solvent Naphtha	Guinea pig	Not classified
White Mineral Oil (Petroleum)	Guinea pig	Not classified
Glycerin	Guinea pig	Not classified
Titanium dioxide	Guinea pig	Not classified

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 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
White Mineral Oil (Petroleum)	In Vitro	Not mutagenic
Lead	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
White Mineral Oil (Petroleum)	Dermal	Mouse	Not carcinogenic
White Mineral Oil (Petroleum)	Inhalation	Multiple animal species	Not carcinogenic
Glycerin	Ingestion	Mouse	Some positive data exist, but the data are not sufficient for classification
Titanium dioxide	Inhalation	Rat	Carcinogenic
Lead	Not Specified	official classification	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
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
Glycerin	Ingestion	Not classified for female reproduction	Rat	NOAEL 2,000 mg/kg/day	2 generation
Glycerin	Ingestion	Not classified for male reproduction	Rat	NOAEL 2,000 mg/kg/day	2 generation
Glycerin	Ingestion	Not classified for development	Rat	NOAEL 2,000 mg/kg/day	2 generation
Lead	Not Specified	Toxic to female reproduction	Human	LOAEL 10 ug/dl blood	
Lead	Not Specified	Toxic to male reproduction	Human	LOAEL 37 ug/dl blood	
Lead	Not Specified	Toxic to development	Human	NOAEL Not available	

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	May cause drowsiness or dizziness	Professional judgement	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	Professional judgement	NOAEL Not available	
Lead	Ingestion	nervous system	May cause damage to organs	Human	LOAEL 90 ug/dl blood	poisoning and/or abuse
Lead	Ingestion	heart	Not classified	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
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	NOAEL 1.3 mg/l	90 days

				species		
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
Glycerin	Inhalation	respiratory system heart liver kidney and/or bladder	Not classified	Rat	NOAEL 3.91 mg/l	14 days
Glycerin	Ingestion	endocrine system hematopoietic system liver kidney and/or bladder	Not classified	Rat	NOAEL 10,000 mg/kg/day	2 years
Lead	Inhalation	kidney and/or bladder	May cause damage to organs though prolonged or repeated exposure	Human	LOAEL 60 ug/dl blood	occupational exposure
Lead	Inhalation	hematopoietic system	May cause damage to organs though prolonged or repeated exposure	Human	LOAEL 50 ug/dl blood	occupational exposure
Lead	Inhalation	nervous system	May cause damage to organs though prolonged or repeated exposure	Human	LOAEL 40 ug/dl blood	occupational exposure
Lead	Inhalation	gastrointestinal tract	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Lead	Inhalation	heart endocrine system immune system vascular system	Not classified	Human	NOAEL Not available	occupational exposure
Lead	Ingestion	bone, teeth, nails, and/or hair	May cause damage to organs though prolonged or repeated exposure	Rat	LOAEL 20 ug/dl blood	3 months
Lead	Ingestion	eyes	May cause damage to organs though prolonged or repeated exposure	Rat	LOAEL 0.5 mg/kg/day	20 days
Lead	Ingestion	hematopoietic system kidney and/or bladder	May cause damage to organs though prolonged or repeated exposure	Human	LOAEL 40 ug/dl blood	environmental exposure
Lead	Ingestion	nervous system	May cause damage to organs though prolonged or repeated exposure	Human	LOAEL 11 ug/dl blood	environmental exposure
Lead	Ingestion	auditory system heart endocrine system vascular system	Not classified	Human	NOAEL Not available	environmental exposure

Aspiration Hazard

Name	Value
HYDROTREATED LIGHT PETROLEUM DISTILLATES	Aspiration hazard
Medium Aliphatic Solvent Naphtha	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:

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 #	Organism	Type	Exposure	Test Endpoint	Test Result
HYDROTREATED LIGHT PETROLEUM DISTILLATES	64742-47-8	Green Algae	Estimated	72 hours	Effect Concentration 50%	1 mg/l
HYDROTREATED LIGHT PETROLEUM DISTILLATES	64742-47-8	Rainbow Trout	Estimated	96 hours	Lethal Level 50%	2 mg/l
HYDROTREATED LIGHT PETROLEUM DISTILLATES	64742-47-8	Water flea	Estimated	48 hours	Effect Level 50%	1.4 mg/l
HYDROTREATED LIGHT PETROLEUM DISTILLATES	64742-47-8	Green Algae	Estimated	72 hours	No obs Effect Level	1 mg/l
HYDROTREATED LIGHT PETROLEUM DISTILLATES	64742-47-8	Water flea	Estimated	21 days	No obs Effect Level	0.48 mg/l
Medium Aliphatic Solvent Naphtha	64742-88-7	Green Algae	Estimated	72 hours	Effect Level 50%	8.3 mg/l
Medium Aliphatic Solvent Naphtha	64742-88-7	Rainbow Trout	Estimated	96 hours	Lethal Level 50%	20 mg/l
Medium Aliphatic Solvent Naphtha	64742-88-7	Water flea	Estimated	48 hours	Effect Level 50%	1.4 mg/l
Medium Aliphatic Solvent Naphtha	64742-88-7	Green Algae	Estimated	72 hours	No obs Effect Level	4 mg/l
Medium Aliphatic Solvent Naphtha	64742-88-7	Water flea	Estimated	21 days	No obs Effect Level	0.48 mg/l
White Mineral Oil (Petroleum)	8042-47-5	Water flea	Estimated	48 hours	Effect Level 50%	>100 mg/l
White Mineral	8042-47-5	Bluegill	Experimental	96 hours	Lethal Level	>100 mg/l

Oil (Petroleum)					50%	
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
Glycerin	56-81-5	Rainbow Trout	Experimental	96 hours	Lethal Concentration 50%	54,000 mg/l
Glycerin	56-81-5	Water flea	Experimental	48 hours	Lethal Concentration 50%	1,955 mg/l
Kaolin, calcined	92704-41-1	Green algae	Estimated	72 hours	Effect Concentration 50%	2,500 mg/l
Kaolin, calcined	92704-41-1	Water flea	Estimated	48 hours	Effect Concentration 50%	>100 mg/l
Kaolin, calcined	92704-41-1	Zebra Fish	Estimated	96 hours	Lethal Concentration 50%	>100 mg/l
Kaolin, calcined	92704-41-1	Green algae	Estimated	72 hours	Effect Concentration 10%	41 mg/l
Kaolin, calcined	92704-41-1	Rainbow Trout	Estimated	30 days	No obs Effect Conc	>100 mg/l
1,2-BENZISOTHI AZOLIN-3-ONE	2634-33-5	Green algae	Experimental	72 hours	Effect Concentration 50%	0.11 mg/l
1,2-BENZISOTHI AZOLIN-3-ONE	2634-33-5	Pacific oyster	Experimental	48 hours	Effect Concentration 50%	0.062 mg/l
1,2-BENZISOTHI AZOLIN-3-ONE	2634-33-5	Rainbow Trout	Experimental	96 hours	Lethal Concentration 50%	1.6 mg/l
1,2-BENZISOTHI AZOLIN-3-ONE	2634-33-5	Water flea	Experimental	48 hours	Effect Concentration 50%	2.9 mg/l
1,2-BENZISOTHI AZOLIN-3-ONE	2634-33-5	Green algae	Experimental	72 hours	No obs Effect Conc	0.0403 mg/l
Lead	7439-92-1	Algae	Experimental	72 hours	Effect Concentration 50%	0.105 mg/l
Lead	7439-92-1	Common Carp	Experimental	96 hours	Lethal Concentration 50%	0.44 mg/l
Lead	7439-92-1	Crustacea	Laboratory	48 hours	Lethal Concentration 50%	0.53 mg/l
Lead	7439-92-1	Rainbow Trout	Experimental	578 days	No obs Effect	0.003 mg/l

					Conc	
Titanium dioxide	13463-67-7		Data not available or insufficient for classification			

12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
HYDROTREA TED LIGHT PETROLEUM DISTILLATES	64742-47-8	Data not availbl- insufficient			N/A	
Medium Aliphatic Solvent Naphtha	64742-88-7	Experimental Biodegradation	28 days	Carbon dioxide evolution	55 % weight	OECD 301B - Mod. Sturm or CO2
White Mineral Oil (Petroleum)	8042-47-5	Experimental Biodegradation	28 days	Carbon dioxide evolution	0 % weight	OECD 301B - Mod. Sturm or CO2
Glycerin	56-81-5	Experimental Biodegradation	14 days	Biological Oxygen Demand	63 % BOD/ThBOD	OECD 301C - MITI (I)
Kaolin, calcined	92704-41-1	Data not availbl- insufficient			N/A	
1,2-BENZISOTHI AZOLIN-3- ONE	2634-33-5	Experimental Biodegradation	28 days	Biological Oxygen Demand	0 % BOD/ThBOD	OECD 301C - MITI (I)
Lead	7439-92-1	Data not availbl- insufficient			N/A	
Titanium dioxide	13463-67-7	Data not availbl- insufficient			N/A	

12.3. Bioaccumulative potential

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
HYDROTREA TED LIGHT PETROLEUM DISTILLATES	64742-47-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Medium Aliphatic Solvent Naphtha	64742-88-7	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
Glycerin	56-81-5	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	-1.76	Other methods
Kaolin,	92704-41-1	Data not	N/A	N/A	N/A	N/A

3M™ Hand Glaze, 05989, 05990, 06000, 39007

calcined		available or insufficient for classification				
1,2-BENZISOTHI AZOLIN-3-ONE	2634-33-5	Experimental BCF - Bluegill	56 days	Bioaccumulation Factor	6.62	
Lead	7439-92-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Titanium dioxide	13463-67-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

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:UN1760

Proper Shipping Name:CORROSIVE LIQUID, N.O.S.

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:UN1760

Proper Shipping Name:CORROSIVE LIQUID, N.O.S.

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

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS. 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.

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