

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 No. 1 Fast-Cut Paste Rubbing Compound

Product Identification Numbers

XS-0020-0554-3 XS-0020-0555-0 XS-0020-0620-2 XS-0020-0621-0

1.2. Recommended use and restrictions on use

Recommended use

Automotive, Removal of Imperfections from a painted surface

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

Flammable Liquid: Category 3.

Serious Eye Damage/Irritation: Category 2. Skin Corrosion/Irritation: Category 2. Aspiration Hazard: Category 1.

Specific Target Organ Toxicity (repeated exposure): Category 2.

Chronic Aquatic Toxicity: Category 2.

2.2. Label elements

Signal word

Danger

Symbols

Flame | Exclamation mark | Health Hazard | Environment |

Pictograms



Hazard Statements

H226 Flammable liquid and vapor.

H319 Causes serious eye irritation.
H315 Causes skin irritation.

H304 May be fatal if swallowed and enters airways.

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

sensory organs

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention:

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233 Keep container tightly closed.

P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P280B Wear protective gloves and eye/face protection.

P273 Avoid release to the environment.

Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P332 + P313 If skin irritation occurs: Get medical advice/attention.

P331 Do NOT induce vomiting.

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P370 + P378G In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry

chemical or carbon dioxide to extinguish.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Disposal:

P501 Dispose of contents/container in accordance with applicable

local/regional/national/international regulations.

2.3. Other hazards

May cause drowsiness or dizziness.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt
Aliphatic Hydrocarbon	64742-47-8	10 - 30
Aluminum Oxide	1344-28-1	10 - 30
WATER	7732-18-5	10 - 30
Amorphous Silica	Trade Secret	7 - 13
OLEIC ACID	112-80-1	1 - 5
White mineral oil	8042-47-5	1 - 5
Cetyl alochol & Glyceyl Stearate & PEG-75	Mixture	1 - 5
Stearate & Ceteth-20 & Steareth-20		
1,2-BENZISOTHIAZOLIN-3-ONE	2634-33-5	< 1
MORPHOLINE	110-91-8	0.1 - 1
Paraffin Wax	8002-74-2	0.1 - 1

Any remaining components do not contribute to the hazards of this material.

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:

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

If Swallowed:

Do not induce vomiting. Get immediate 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 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

SubstanceConditionCarbon monoxideDuring CombustionCarbon dioxideDuring CombustionIrritant Vapors or GasesDuring 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 dikes 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. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and 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

For industrial/occupational use only. Not for consumer sale or use. Keep away from heat/sparks/open flames/hot surfaces.

- No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe 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. Wash contaminated clothing before reuse. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. 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 container tightly closed. Keep cool. Store away from heat. 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
MORPHOLINE	110-91-8	ACGIH	TWA:20 ppm	A4: Not class. as human

				carcin, Danger of cutaneous absorption
MORPHOLINE	110-91-8	Malaysia OELs	TWA(8 hours):71 mg/m3(20 ppm)	SKIN
Aluminum Oxide	1344-28-1	Malaysia OELs	TWA (proposed)(8 hours):10 mg/m3	
Aluminum, insoluble compounds	1344-28-1	ACGIH	TWA(respirable fraction):1 mg/m3	A4: Not class. as human carcin
JET FUELS (NON-AEROSOL), AS TOTAL HYDROCARBON VAPOR	64742-47-8	ACGIH	TWA(as total hydrocarbon vapor, non-aerosol):200 mg/m3	A3: Confirmed animal carcin., SKIN
Kerosine (petroleum)	64742-47-8	ACGIH	TWA(as total hydrocarbon vapor, non-aerosol):200 mg/m3	A3: Confirmed animal carcin., SKIN
Paraffin Wax	8002-74-2	ACGIH	TWA(as fume):2 mg/m3	
Paraffin Wax	8002-74-2	Malaysia OELs	TWA(as fume)(8 hours):2 mg/m3	
MINERAL OILS, HIGHLY- REFINED OILS	8042-47-5	ACGIH	TWA(inhalable fraction):5 mg/m3	A4: Not class. as human carcin
OIL MIST, MINERAL	8042-47-5	Malaysia OELs	TWA(as mist)(8 hours):5 mg/m3	

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. Use explosion-proof ventilation equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Indirect Vented Goggles

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

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - 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 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

information on basic physical and encinical properties	<u> </u>
Physical state	Liquid
Color	Beige-Cream, Cream
Odor	Solvent
Odor threshold	No Data Available
pH	7.5 - 9.5
Melting point/Freezing point	No Data Available
Boiling point/Initial boiling point/Boiling range	No boiling point
Flash Point	60 °C
Evaporation rate	No Data Available
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	No Data Available
Flammable Limits(UEL)	No Data Available
Vapor Pressure	No Data Available
Vapor Density and/or Relative Vapor Density	No Data Available
Density	1 - 1.3 g/ml
Relative Density	1 - 1.3
Water solubility	Nil
Solubility- non-water	No Data Available
Partition coefficient: n-octanol/ water	No Data Available
Autoignition temperature	No Data Available
Decomposition temperature	No Data Available
Viscosity/Kinematic Viscosity	No Data Available
Volatile Organic Compounds	
Percent volatile	50 - 55 %
VOC Less H2O & Exempt Solvents	

Nanoparticles

This material does not contain nanoparticles.

SECTION 10: Stability and reactivity

10.1. Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

High shear and high temperature conditions

Heat

10.5. Incompatible materials

Strong acids Strong bases Strong oxidizing agents

10.6. Hazardous decomposition products

Substance

Condition

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

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

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

May cause additional health effects (see below).

Eye Contact:

Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion:

Chemical (Aspiration) Pneumonitis: Signs/symptoms may include coughing, gasping, choking, burning of the mouth, difficulty breathing, bluish colored skin (cyanosis), and may be fatal.

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

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.

Prolonged or repeated exposure may cause target organ effects:

Ocular Effects: Signs/symptoms may include blurred or significantly impaired vision.

Respiratory Effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish colored skin (cyanosis), sputum production, changes in lung function tests, and/or respiratory failure.

Kidney/Bladder Effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

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	Ingestion		No data available; calculated ATE >5,000 mg/kg
Aliphatic Hydrocarbon	Dermal	Rabbit	LD50 > 3,160 mg/kg
Aliphatic Hydrocarbon	Inhalation-	Rat	LC50 > 3 mg/l
	Dust/Mist		
	(4 hours)		
Aliphatic Hydrocarbon	Ingestion	Rat	LD50 > 5,000 mg/kg
Aluminum Oxide	Dermal		LD50 estimated to be > 5,000 mg/kg
Aluminum Oxide	Inhalation-	Rat	LC50 > 2.3 mg/l
	Dust/Mist		
	(4 hours)		
Aluminum Oxide	Ingestion	Rat	LD50 > 5,000 mg/kg
OLEIC ACID	Dermal	Guinea	LD50 > 3,000 mg/kg
		pig	
OLEIC ACID	Ingestion	Rat	LD50 57,000 mg/kg
White mineral oil	Dermal	Rabbit	LD50 > 2,000 mg/kg
White mineral oil	Ingestion	Rat	LD50 > 5,000 mg/kg
Paraffin Wax	Dermal	Rat	LD50 > 5,000 mg/kg
Paraffin Wax	Ingestion	Rat	LD50 > 5,000 mg/kg
MORPHOLINE	Dermal	Rabbit	LD50 310 mg/kg
MORPHOLINE	Inhalation-	Rat	LC50 estimated to be 10 - 20 mg/l
	Vapor		
MORPHOLINE	Ingestion	Rat	LD50 1,050 mg/kg
1,2-BENZISOTHIAZOLIN-3-ONE	Dermal	Rat	LD50 > 2,000 mg/kg
1,2-BENZISOTHIAZOLIN-3-ONE	Ingestion	Rat	LD50 454 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Aliphatic Hydrocarbon	Rabbit	Mild irritant
Aluminum Oxide	Rabbit	No significant irritation
OLEIC ACID	Rabbit	Minimal irritation
White mineral oil	Rabbit	No significant irritation
Paraffin Wax	Rabbit	No significant irritation
MORPHOLINE	official	Corrosive
	classificat	
	ion	
1,2-BENZISOTHIAZOLIN-3-ONE	Rabbit	No significant irritation

Serious Eve Damage/Irritation

Scribus Lye Damage Hitation				
Name	Species	Value		
Aliphatic Hydrocarbon	Rabbit	Mild irritant		
Aluminum Oxide	Rabbit	No significant irritation		

OLEIC ACID	Rabbit	Mild irritant
White mineral oil	Rabbit	Mild irritant
Paraffin Wax	Rabbit	No significant irritation
MORPHOLINE	Rabbit	Corrosive
1,2-BENZISOTHIAZOLIN-3-ONE	Rabbit	Corrosive

Sensitization:

Skin Sensitization

Name	Species	Value
	_	
Aliphatic Hydrocarbon	Guinea	Not classified
	pig	
White mineral oil	Guinea	Not classified
	pig	
Paraffin Wax	Guinea	Not classified
	pig	
MORPHOLINE	Guinea	Not classified
	pig	
1,2-BENZISOTHIAZOLIN-3-ONE	Guinea	Sensitizing
	pig	

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
Aliphatic Hydrocarbon	In Vitro	Not mutagenic
Aluminum Oxide	In Vitro	Not mutagenic
OLEIC ACID	In Vitro	Some positive data exist, but the data are not sufficient for classification
White mineral oil	In Vitro	Not mutagenic
Paraffin Wax	In Vitro	Not mutagenic
MORPHOLINE	In Vitro	Some positive data exist, but the data are not sufficient for classification
MORPHOLINE	In vivo	Some positive data exist, but the data are not sufficient for classification
1,2-BENZISOTHIAZOLIN-3-ONE	In vivo	Not mutagenic
1,2-BENZISOTHIAZOLIN-3-ONE	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Aliphatic Hydrocarbon	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Aluminum Oxide	Inhalation	Rat	Not carcinogenic
OLEIC ACID	Dermal	Mouse	Not carcinogenic
OLEIC ACID	Ingestion	Rat	Not carcinogenic
OLEIC ACID	Not Specified	Multiple animal species	Not carcinogenic
White mineral oil	Dermal	Mouse	Not carcinogenic
White mineral oil	Inhalation	Multiple animal species	Not carcinogenic
Paraffin Wax	Ingestion	Rat	Not carcinogenic
MORPHOLINE	Ingestion	Multiple animal species	Not carcinogenic
MORPHOLINE	Inhalation	Rat	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
White mineral oil	Ingestion	Not classified for female reproduction	Rat	NOAEL 4,350 mg/kg/day	13 weeks
White mineral oil	Ingestion	Not classified for male reproduction	Rat	NOAEL 4,350 mg/kg/day	13 weeks
White mineral oil	Ingestion	Not classified for development	Rat	NOAEL 4,350 mg/kg/day	during gestation
1,2-BENZISOTHIAZOLIN-3-ONE	Ingestion	Not classified for female reproduction	Rat	NOAEL 112 mg/kg/day	2 generation
1,2-BENZISOTHIAZOLIN-3-ONE	Ingestion	Not classified for male reproduction	Rat	NOAEL 112 mg/kg/day	2 generation
1,2-BENZISOTHIAZOLIN-3-ONE	Ingestion	Not classified for development	Rat	NOAEL 112 mg/kg/day	2 generation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Aliphatic Hydrocarbon	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Aliphatic Hydrocarbon	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Aliphatic Hydrocarbon	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professio nal judgeme nt	NOAEL Notavailable	
MORPHOLINE	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
1,2- BENZISOTHIAZOLIN-3- ONE	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Aluminum Oxide	num Oxide Inhalation pneumoconiosis Some positive data exist, but the data are not sufficient for classification		Human	NOAEL Not available	occupational exposure	
Aluminum Oxide	Inhalation	pulmonary fibrosis	Not classified	Human	NOAEL Not available	occupational exposure
OLEIC ACID	Ingestion	liver immune system	Not classified	Rat	NOAEL 2,250 mg/kg/day	108 weeks
OLEIC ACID	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 2,550 mg/kg/day	108 weeks
White mineral oil	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 1,381 mg/kg/day	90 days
White mineral oil	Ingestion	liver immune system	Not classified	Rat	NOAEL 1,336 mg/kg/day	90 days
Paraffin Wax	Ingestion	heart	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 15 mg/kg/day	90 days
Paraffin Wax	Ingestion	hematopoietic	Not classified	Rat	NOAEL	90 days

		system liver immune system skin endocrine system bone, teeth, nails, and/or hair muscles nervous system eyes kidney and/or bladder respiratory system vascular system			1,500 mg/kg/day	
MORPHOLINE	Dermal	liver kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Guinea pig	LOAEL 900 mg/kg/day	13 days
MORPHOLINE	Dermal	hematopoietic system	Not classified	Guinea pig	NOAEL 900 mg/kg/day	13 days
MORPHOLINE	Inhalation	eyes	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
MORPHOLINE	Inhalation	respiratory system	May cause damage to organs though prolonged or repeated exposure	Rat	NOAEL 0.09 mg/l	13 weeks
MORPHOLINE	Inhalation	liver kidney and/or bladder	Not classified	Rat	LOAEL 64 mg/l	5 days
MORPHOLINE	Inhalation	heart endocrine system	Not classified	Rat	NOAEL 0.9 mg/l	13 weeks
MORPHOLINE	Inhalation	gastrointestinal tract nervous system	Not classified	Rat	NOAEL 0.53 mg/l	104 weeks
MORPHOLINE	Ingestion	kidney and/or bladder	May cause damage to organs though prolonged or repeated exposure	Rat	LOAEL 160 mg/kg/day	30 days
MORPHOLINE	Ingestion	liver respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 160 mg/kg/day	30 days
MORPHOLINE	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 800 mg/kg/day	30 days
MORPHOLINE	Ingestion	endocrine system	Not classified	Rat	NOAEL 323 mg/kg/day	4 weeks
1,2- BENZISOTHIAZOLIN-3- ONE	Ingestion	liver hematopoietic system eyes kidney and/or bladder respiratory system	Not classified	Rat	NOAEL 322 mg/kg/day	90 days
1,2- BENZISOTHIAZOLIN-3- ONE	Ingestion	heart endocrine system nervous system	Not classified	Rat	NOAEL 150 mg/kg/day	28 days

Aspiration Hazard

Name	Value
Aliphatic Hydrocarbon	Aspiration hazard
White mineral oil	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 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 #	Organism	Type	Exposure	Test Endpoint	Test Result
Aliphatic Hydrocarbon	64742-47-8	Green Algae	Estimated	72 hours	Effect Concentration 50%	1 mg/l
Aliphatic Hydrocarbon	64742-47-8	Rainbow Trout	Estimated	96 hours	Lethal Level 50%	2 mg/l
Aliphatic Hydrocarbon	64742-47-8	Water flea	Estimated	48 hours	Effect Level 50%	1.4 mg/l
Aliphatic Hydrocarbon	64742-47-8	Green Algae	Estimated	72 hours	No obs Effect Level	1 mg/l
Aliphatic Hydrocarbon	64742-47-8	Water flea	Estimated	21 days	No obs Effect Level	0.48 mg/l
Aluminum Oxide	1344-28-1	Fish	Experimental	96 hours	Lethal Concentration 50%	>100 mg/l
Aluminum Oxide	1344-28-1	Green Algae	Experimental	72 hours	Effect Concentration 50%	>100 mg/l
Aluminum Oxide	1344-28-1	Water flea	Experimental	48 hours	Lethal Concentration 50%	>100 mg/l
Aluminum Oxide	1344-28-1	Green Algae	Experimental	72 hours	No obs Effect Conc	>100 mg/l
OLEIC ACID	112-80-1		Data not available or insufficient for classification			
White mineral oil	8042-47-5	Water flea	Estimated	48 hours	Effect Level 50%	>100 mg/l
White mineral oil	8042-47-5	Bluegill	Experimental	96 hours	Lethal Level 50%	>100 mg/l
White mineral oil	8042-47-5	Green algae	Estimated	72 hours	No obs Effect Level	>100 mg/l
White mineral oil	8042-47-5	Water flea	Estimated	21 days	No obs Effect Level	>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
MORPHOLIN E	110-91-8	Fish other	Experimental	96 hours	Lethal Concentration 50%	100 mg/l
MORPHOLIN E	110-91-8	Green algae	Experimental	96 hours	Effect Concentration 50%	28 mg/l
MORPHOLIN E	110-91-8	Rainbow Trout	Experimental	96 hours	Lethal Concentration 50%	180 mg/l
MORPHOLIN E	110-91-8	Water flea	Experimental	48 hours	Effect Concentration 50%	45 mg/l
MORPHOLIN E	110-91-8	Green algae	Experimental	96 hours	No obs Effect Conc	10 mg/l
MORPHOLIN E	110-91-8	Water flea	Experimental	21 days	No obs Effect Conc	5 mg/l
Paraffin Wax	8002-74-2	Green algae	Estimated	96 hours	Effect Concentration 50%	>1,000 mg/l
Paraffin Wax	8002-74-2	Rainbow Trout		96 hours	Lethal Concentration 50%	>1,000 mg/l
Paraffin Wax	8002-74-2	Water flea	Estimated	48 hours	Effect Concentration 50%	>10,000 mg/l

12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Aliphatic	64742-47-8	Data not			N/A	
Hydrocarbon		availbl-				
		insufficient				
Aluminum	1344-28-1	Data not			N/A	
Oxide		availbl-				
		insufficient				
OLEIC ACID	112-80-1	Experimental	28 days	Biological	78 %	OECD 301C - MITI (I)
		Biodegradation		Oxygen	BOD/ThBOD	
				Demand		
White mineral	8042-47-5	Experimental	28 days	Carbon dioxide	0 % weight	OECD 301B - Mod.
oil		Biodegradation		evolution	_	Sturm or CO2
1,2-	2634-33-5	Experimental	28 days	Biological	0 %	OECD 301C - MITI (I)
BENZISOTHI		Biodegradation		Oxygen	BOD/ThBOD	
AZOLIN-3-				Demand		
ONE						
MORPHOLIN	110-91-8	Experimental	28 days	Dissolv.	93 % weight	OECD 301E - Modified
E		Biodegradation		Organic		OECD Scre
				Carbon Deplet		

Paraffin Wax	8002-74-2	Estimated	28 days	Biological	40 % weight	OECD 301F -
		Biodegradation		Oxygen		Manometric Respiro
				Demand		

12.3. Bioaccumulative potential

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Aliphatic Hydrocarbon	64742-47-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Aluminum Oxide	1344-28-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
OLEIC ACID	112-80-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
White mineral oil	8042-47-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
1,2- BENZISOTHI AZOLIN-3- ONE	2634-33-5	Experimental BCF - Bluegill	56 days	Bioaccumulatio n Factor	6.62	
MORPHOLIN E	110-91-8	Experimental BCF-Carp	42 days	Bioaccumulatio n Factor	<2.8	OECD 305C-Bioaccum degree fish
Paraffin Wax	8002-74-2	Estimated Bioconcentrati on		Log of Octanol/H2O part. coeff	10.2	Est: Octanol-water part. coeff

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

Marine Transport (IMDG)

UN Number: UN1866

Proper Shipping Name: RESIN SOLUTION

Technical Name: None assigned.

Hazard Class/Division:3
Subsidiary Risk: None assigned.

Packing Group:III Limited Quantity:Yes

Marine Pollutant: None assigned.

Marine Pollutant Technical Name: None assigned.

Other Dangerous Goods Descriptions:

None assigned.

Air Transport (IATA)

UN Number:UN1866

Proper Shipping Name:RESIN SOLUTION

Technical Name: None assigned.

Hazard Class/Division:3

Subsidiary Risk: None assigned.

Packing Group: III

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.

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.

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