Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the DENR Administrative Order No. 2015-09 Rules and Procedures for the Implementation of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) in Preparation of Safety Data Sheet (SDS) and Labelling Requirements of Toxic Chemical Substances.

SECTION 1: Identification

1.1. Product identifier
3M No. 1 Fast-Cut Paste Rubbing Compound

Product Identification Numbers
XS-0020-0554-3

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 Philippines, Inc., 18th Floor, Bonifacio Stopover Corporate Center, 31st Street corner, 2nd Avenue, Bonifacio Global City, Taguig City, 1635 Philippines
Telephone: +632 827 11680
E Mail: mcvillalva@mmm.com
Website: www.3m.com/ph

1.4. Emergency telephone number
+632 827 11680

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture
Flammable Liquid: Category 3.
Skin Corrosion/Irritation: Category 2.
Serious Eye Damage/Irritation: Category 2A.
Specific Target Organ Toxicity (repeated exposure): Category 2.
Specific Target Organ Toxicity (single exposure): Category 3.
Aspiration Hazard: Category 1.
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.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
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, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P273	Avoid release to the environment.

Response:

P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P331	Do NOT induce vomiting.
P370 + P378	In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

Disposal:

P501	Dispose of contents and container in accordance with applicable local, regional, national, and international regulations.

2.3. Other hazards
None known

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
White mineral oil	8042-47-5	1 - 5
Cetyl alochol & Glyceyl Stearate & PEG-75 Stearate & Ceteth-20 & Steareth-20	Mixture	1 - 5
OLEIC ACID	112-80-1	1 - 5
Paraffin Wax	8002-74-2	0.1 - 1
MORPHOLINE	110-91-8	0.1 - 1
1,2-BENZISOTHIAZOLIN-3-ONE	2634-33-5	< 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:
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

Allergic skin reaction (redness, swelling, blistering, and itching). Aspiration pneumonitis (coughing, gasping, choking, burning of the mouth, and difficulty breathing). Central nervous system depression (headache, dizziness, drowsiness, incoordination, nausea, slurred speech, giddiness, and unconsciousness). Target organ effects following prolonged or repeated exposure. See Section 11 for additional details.

4.3. Indication of any immediate medical attention and special treatment required
Not applicable.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

5.2. Special hazards arising from the substance or mixture
Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

Substance	Condition
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Irritant Vapors or Gases	During Combustion

5.3. Special protective actions for fire-fighters
Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
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. 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.

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. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. 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. Use personal protective equipment (gloves, respirators, etc.) as required. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapor accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer.

7.2. Conditions for safe storage including any incompatibilities
Store in a well-ventilated place. Keep 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	Philippines OELs	TWA(8 hours):70 mg/m3(20 ppm)	SKIN
Particles (insoluble or poorly soluble) not otherwise specified, inhalable particles	1344-28-1	ACGIH	TWA(inhalable particulates):10 mg/m3	
Particles (insoluble or poorly soluble) not otherwise specified, respirable particles	1344-28-1	ACGIH	TWA(respirable particles):3 mg/m3	
Kerosene/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
Mineral oil, excluding metal working fluids, pure, highly and severely refined, inhalable fraction	64742-47-8	ACGIH	TWA(inhalable fraction):5 mg/m3	A4: Not class. as human carcin
Paraffin Wax	8002-74-2	ACGIH	TWA(as fume):2 mg/m3	
Mineral oil, excluding metal working fluids, pure, highly and severely refined, inhalable fraction	8042-47-5	ACGIH	TWA(inhalable fraction):5 mg/m3	A4: Not class. as human carcin
Oil mist (mineral)	8042-47-5	Philippines OELs	TWA(as mist)(8 hours):5 mg/m3	

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
Philippines OELs : Philippines. Threshold Limit Values for Airborne Contaminants
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:
Safety Glasses with side shields
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 (e.g., spraying, high splash potential, etc.), then use of a protective apron may be necessary. See recommended glove material(s) for determining appropriate apron material(s). If a glove material is not available as an apron, polymer laminate is a suitable option.

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
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 ºC
Evaporation rate	*No Data Available*
Flammability	Flammable Liquid: Category 3.
Flammable Limits(LEL)	*No Data Available*
Flammable Limits(UEL)	*No Data Available*
Vapor Pressure	*No Data Available*
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*
Kinematic Viscosity	*No Data Available*
Volatile Organic Compounds	*No Data Available*
Percent volatile	50 - 55 %
VOC Less H2O & Exempt Solvents	*No Data Available*

Particle Characteristics	*Not Applicable*

SECTION 10: Stability and reactivity

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

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions
Hazardous 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.

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:
Fibrosis: Signs/symptoms may include breathlessness, chronic dry cough, phlegm production, wheezing, and changes in lung function tests. Ocular Effects: Signs/symptoms may include blurred or significantly impaired vision. 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.

Reproductive/Developmental Toxicity:
Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

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	Inhalation-Vapor	Professional judgement	LC50 estimated to be 20 - 50 mg/l
Aliphatic Hydrocarbon	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 3 mg/l
Aliphatic Hydrocarbon	Ingestion	Rat	LD50 > 5,000 mg/kg
Aliphatic Hydrocarbon	Dermal	similar compounds	LD50 > 2,000 mg/kg
Aluminum Oxide	Dermal		LD50 estimated to be > 5,000 mg/kg
Aluminum Oxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 2.3 mg/l
Aluminum Oxide	Ingestion	Rat	LD50 > 5,000 mg/kg
OLEIC ACID	Dermal	Guinea pig	LD50 > 3,000 mg/kg
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 500 mg/kg
MORPHOLINE	Inhalation-Vapor	Rat	LC50 estimated to be 10 - 20 mg/l
MORPHOLINE	Ingestion	Rat	LD50 1,680 mg/kg
1,2-BENZISOTHIAZOLIN-3-ONE	Dermal	Rat	LD50 > 2,000 mg/kg
1,2-BENZISOTHIAZOLIN-3-ONE	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.21 mg/l
1,2-BENZISOTHIAZOLIN-3-ONE	Ingestion	Rat	LD50 450 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Aliphatic Hydrocarbon	Rabbit	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	Rabbit	Corrosive

1,2-BENZISOTHIAZOLIN-3-ONE	Human	Irritant

Serious Eye Damage/Irritation

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 pig	Not classified
OLEIC ACID	similar compounds	Not classified
White mineral oil	Guinea pig	Not classified
Paraffin Wax	Guinea pig	Not classified
MORPHOLINE	Guinea pig	Not classified
1,2-BENZISOTHIAZOLIN-3-ONE	Human	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
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
MORPHOLINE	Ingestion	Toxic to male reproduction	similar compounds	NOAEL 60 mg/kg/day	2 generation
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	Professional judgement	NOAEL Notavailable	
MORPHOLINE	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	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	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	Not classified	Rat	NOAEL 2,250	108 weeks

					mg/kg/day	
OLEIC ACID	Ingestion	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	Not classified	Rat	NOAEL 1,336 mg/kg/day	90 days
White mineral oil	Ingestion	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 system	Not classified	Rat	NOAEL 1,500 mg/kg/day	90 days
Paraffin Wax	Ingestion	liver	Not classified	Rat	NOAEL 1,500 mg/kg/day	90 days
Paraffin Wax	Ingestion	immune system	Not classified	Rat	NOAEL 1,500 mg/kg/day	90 days
Paraffin Wax	Ingestion	skin	Not classified	Rat	NOAEL 1,500 mg/kg/day	90 days
Paraffin Wax	Ingestion	endocrine system	Not classified	Rat	NOAEL 1,500 mg/kg/day	90 days
Paraffin Wax	Ingestion	bone, teeth, nails, and/or hair	Not classified	Rat	NOAEL 1,500 mg/kg/day	90 days
Paraffin Wax	Ingestion	muscles	Not classified	Rat	NOAEL 1,500 mg/kg/day	90 days
Paraffin Wax	Ingestion	nervous system	Not classified	Rat	NOAEL 1,500 mg/kg/day	90 days
Paraffin Wax	Ingestion	eyes	Not classified	Rat	NOAEL 1,500 mg/kg/day	90 days
Paraffin Wax	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 1,500 mg/kg/day	90 days
Paraffin Wax	Ingestion	respiratory system	Not classified	Rat	NOAEL 1,500 mg/kg/day	90 days
Paraffin Wax	Ingestion	vascular system	Not classified	Rat	NOAEL 1,500 mg/kg/day	90 days
MORPHOLINE	Dermal	liver	Some positive data exist, but the data are not sufficient for classification	Guinea pig	LOAEL 900 mg/kg/day	13 days
MORPHOLINE	Dermal	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	pulmonary fibrosis	May cause damage to organs though prolonged or repeated exposure	Rat	NOAEL 0.09 mg/l	13 weeks

MORPHOLINE	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 64 mg/l	5 days
MORPHOLINE	Inhalation	liver	Not classified	Rat	LOAEL 64 mg/l	5 days
MORPHOLINE	Inhalation	heart	Not classified	Rat	NOAEL 0.9 mg/l	13 weeks
MORPHOLINE	Inhalation	endocrine system	Not classified	Rat	NOAEL 0.9 mg/l	13 weeks
MORPHOLINE	Inhalation	gastrointestinal tract	Not classified	Rat	NOAEL 0.53 mg/l	104 weeks
MORPHOLINE	Inhalation	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	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 160 mg/kg/day	30 days
MORPHOLINE	Ingestion	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	Not classified	Rat	NOAEL 322 mg/kg/day	90 days
1,2-BENZISOTHIAZOLIN-3-ONE	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 322 mg/kg/day	90 days
1,2-BENZISOTHIAZOLIN-3-ONE	Ingestion	eyes	Not classified	Rat	NOAEL 322 mg/kg/day	90 days
1,2-BENZISOTHIAZOLIN-3-ONE	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 322 mg/kg/day	90 days
1,2-BENZISOTHIAZOLIN-3-ONE	Ingestion	respiratory system	Not classified	Rat	NOAEL 322 mg/kg/day	90 days
1,2-BENZISOTHIAZOLIN-3-ONE	Ingestion	heart	Not classified	Rat	NOAEL 150 mg/kg/day	28 days
1,2-BENZISOTHIAZOLIN-3-ONE	Ingestion	endocrine system	Not classified	Rat	NOAEL 150 mg/kg/day	28 days
1,2-BENZISOTHIAZOLIN-3-ONE	Ingestion	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	EC50	1 mg/l
Aliphatic Hydrocarbon	64742-47-8	Rainbow Trout	Estimated	96 hours	LL50	2 mg/l
Aliphatic Hydrocarbon	64742-47-8	Water flea	Estimated	48 hours	EL50	1.4 mg/l
Aliphatic Hydrocarbon	64742-47-8	Green algae	Estimated	72 hours	NOEL	1 mg/l
Aliphatic Hydrocarbon	64742-47-8	Water flea	Estimated	21 days	NOEL	0.48 mg/l
Aluminum Oxide	1344-28-1	Fish	Experimental	96 hours	LC50	>100 mg/l
Aluminum Oxide	1344-28-1	Green algae	Experimental	72 hours	EC50	>100 mg/l
Aluminum Oxide	1344-28-1	Water flea	Experimental	48 hours	LC50	>100 mg/l
Aluminum Oxide	1344-28-1	Green algae	Experimental	72 hours	NOEC	>100 mg/l
OLEIC ACID	112-80-1	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
White mineral oil	8042-47-5	Water flea	Analogous Compound	48 hours	EL50	>100 mg/l
White mineral oil	8042-47-5	Bluegill	Experimental	96 hours	LL50	>100 mg/l
White mineral oil	8042-47-5	Green algae	Analogous Compound	72 hours	NOEL	100 mg/l
White mineral oil	8042-47-5	Water flea	Analogous Compound	21 days	NOEL	>100 mg/l
1,2-BENZISOTHIAZOLIN-3-ONE	2634-33-5	Green algae	Experimental	72 hours	ErC50	0.11 mg/l
1,2-BENZISOTHIAZOLIN-3-ONE	2634-33-5	Rainbow Trout	Experimental	96 hours	LC50	1.6 mg/l
1,2-BENZISOTHIAZOLIN-3-ONE	2634-33-5	Sheepshead Minnow	Experimental	96 hours	LC50	16.7 mg/l
1,2-BENZISOTHIAZOLIN-3-ONE	2634-33-5	Water flea	Experimental	48 hours	EC50	2.9 mg/l
1,2-BENZISOTHIAZOLIN-3-ONE	2634-33-5	Green algae	Experimental	72 hours	NOEC	0.0403 mg/l
1,2-BENZISOTHIAZOLIN-3-ONE	2634-33-5	Activated sludge	Experimental	3 hours	EC50	12.8 mg/l
1,2-BENZISOTHIAZOLIN-3-ONE	2634-33-5	Bobwhite quail	Experimental	14 days	LD50	617 mg per kg of bodyweight
1,2-BENZISOTHIAZOLIN-3-ONE	2634-33-5	Cabbage	Experimental	14 days	EC50	200 mg/kg (Dry Weight)
1,2-BENZISOTHIAZO	2634-33-5	Redworm	Experimental	14 days	LC50	>410.6 mg/kg (Dry Weight)

LIN-3-ONE						
1,2-BENZISOTHIAZOLIN-3-ONE	2634-33-5	Soil microbes	Experimental	28 days	EC50	>811.5 mg/kg (Dry Weight)
MORPHOLINE	110-91-8	Activated sludge	Experimental	30 minutes	EC20	>1,000 mg/l
MORPHOLINE	110-91-8	Fish	Experimental	96 hours	LC50	100 mg/l
MORPHOLINE	110-91-8	Green algae	Experimental	96 hours	ErC50	28 mg/l
MORPHOLINE	110-91-8	Rainbow Trout	Experimental	96 hours	LC50	180 mg/l
MORPHOLINE	110-91-8	Water flea	Experimental	48 hours	EC50	45 mg/l
MORPHOLINE	110-91-8	Green algae	Experimental	96 hours	NOEC	10 mg/l
MORPHOLINE	110-91-8	Water flea	Experimental	21 days	NOEC	5 mg/l
Paraffin Wax	8002-74-2	Green algae	Analogous Compound	96 hours	EC50	>1,000 mg/l
Paraffin Wax	8002-74-2	Rainbow Trout	Analogous Compound	96 hours	LC50	>1,000 mg/l
Paraffin Wax	8002-74-2	Water flea	Analogous Compound	48 hours	EC50	>10,000 mg/l

12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Aliphatic Hydrocarbon	64742-47-8	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Aluminum Oxide	1344-28-1	Data not availbl-insufficient	N/A	N/A	N/A	N/A
OLEIC ACID	112-80-1	Experimental Biodegradation	28 days	Biological Oxygen Demand	78 %BOD/ThOD	OECD 301C - MITI (I)
White mineral oil	8042-47-5	Experimental Biodegradation	28 days	Carbon dioxide evolution	0 %CO2 evolution/THCO2 evolution	OECD 301B - Mod. Sturm or CO2
1,2-BENZISOTHIAZOLIN-3-ONE	2634-33-5	Experimental Biodegradation	28 days	Biological Oxygen Demand	0 %BOD/ThOD	OECD 301C - MITI (I)
1,2-BENZISOTHIAZOLIN-3-ONE	2634-33-5	Experimental Aquatic Inherent Biodegrad.	34 days	Dissolv. Organic Carbon Deplet	17 %removal of DOC	OECD 302A - Modified SCAS Test
1,2-BENZISOTHIAZOLIN-3-ONE	2634-33-5	Experimental Biodegradation	21 days	Dissolv. Organic Carbon Deplet	80 %removal of DOC	OECD 303A - Simulated Aerobic
1,2-BENZISOTHIAZOLIN-3-ONE	2634-33-5	Experimental Biodegradation		Half-life (t 1/2)	4 hours (t 1/2)	
1,2-BENZISOTHIAZOLIN-3-ONE	2634-33-5	Experimental Hydrolysis		Hydrolytic half-life	>1 years (t 1/2)	OECD 111 Hydrolysis func of pH
MORPHOLINE	110-91-8	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	93 %removal of DOC	OECD 301E - Modif. OECD Screen
MORPHOLINE	110-91-8	Experimental Biodegradation	31 days	Dissolv. Organic Carbon Deplet	98 %removal of DOC	OECD 302B Zahn-Wellens/EVPA
Paraffin Wax	8002-74-2	Analogous Compound Biodegradation	28 days	Biological Oxygen Demand	40 %BOD/ThOD	OECD 301F - Manometric Respiro

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-BENZISOTHIAZOLIN-3-ONE	2634-33-5	Experimental BCF - Fish	56 days	Bioaccumulation Factor	6.62	similar to OECD 305
1,2-BENZISOTHIAZOLIN-3-ONE	2634-33-5	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	1.45	OECD 107 log Kow shke flsk mtd
MORPHOLINE	110-91-8	Experimental BCF - Fish	42 days	Bioaccumulation Factor	<2.8	OECD305-Bioconcentration
MORPHOLINE	110-91-8	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	-2.55	OECD 107 log Kow shke flsk mtd
Paraffin Wax	8002-74-2	Modeled Bioconcentration		Log of Octanol/H2O part. coeff	10.2	Episuite™

12.4. Mobility in soil
Please contact manufacturer for more details

12.5 Other adverse effects
No information available

SECTION 13: Disposal considerations

13.1. Disposal methods
Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Incinerate in a permitted waste incineration facility. As a disposal alternative, utilize an acceptable permitted waste disposal facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

SECTION 14: Transport Information

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

Revision information:
Section 02: PH Pictogram information was modified.
Section 06: Accidental release environmental information information was modified.
Section 06: Accidental release personal information information was modified.
Section 07: Precautions safe handling information information was modified.
Section 08: Occupational exposure limit table information was modified.
Section 11: Health Effects - Eye information information was modified.
Section 11: Health Effects - Ingestion information information was modified.
Section 11: Health Effects - Inhalation information information was modified.
Section 11: Health Effects - Skin information information was modified.
Section 11: Prolonged or repeated exposure may cause standard phrases information was modified.
Section 11: Reproductive Toxicity Table information was modified.
Section 11: Single exposure may cause standard phrases information was modified.
Section 11: Skin Sensitization Table information was modified.
Section 11: Target Organs - Repeated Table information was modified.

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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