



Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the Minister of Industry Decree No. 23/M-IND/PER/4/2013 and GHS Classification 4th Edition.

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|------------------------|------------|-------------------------|---------------|
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SECTION 1: Identification

1.1. Product identifier

3M™ Finesse-it™ Polish - Final Finish [105], 28796, 84224, 82877, 82878, 88753

Product Identification Numbers

| | | | | |
|----------------|----------------|----------------|----------------|----------------|
| 60-4402-4233-1 | 60-4402-4234-9 | 60-4402-4235-6 | 60-4402-4236-4 | 60-4402-4237-2 |
| HC-0004-2632-6 | J1-9800-1752-6 | JC-2200-4646-3 | JC-3100-8286-5 | XH-0039-0187-9 |

1.2. Recommended use and restrictions on use

Recommended use

Abrasive Product, Polish. For industrial/occupational use only. Not for consumer sale or use.

1.3. Supplier's details

ADDRESS: PT 3M Indonesia , Perkantoran Hijau Arkadia, Menara F, Lt. 8. Jl. TB. Simatupang Kav. 88, Jakarta Selatan, 12520, Indonesia
Telephone: +6221-29974000
Website: https://www.3m.co.id/3M/en_ID/company-id/

1.4. Emergency telephone number

(021)29974000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Skin Corrosion/Irritation: Category 3.

Reproductive Toxicity: Category 2.

2.2. Label elements

Signal word

Warning

Symbols

Health Hazard |

Pictograms

**HAZARD STATEMENTS:**

H316 Causes mild skin irritation.
 H361 Suspected of damaging fertility or the unborn child.

PRECAUTIONARY STATEMENTS**Prevention:**

P280E Wear protective gloves.

2.3. Other hazards

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

SECTION 3: Composition/information on ingredients

This material is a mixture.

| Ingredient | C.A.S. No. | % by Wt |
|--|------------|---------|
| Water | 7732-18-5 | 45 - 60 |
| Aluminum Oxide Mineral (non-fibrous) | 1344-28-1 | 10 - 20 |
| Glycerin | 56-81-5 | 5 - 15 |
| Hydrotreated Heavy Naptha (Petroleum) | 64742-48-9 | 10 - 15 |
| Distillates (Petroleum), Acid Treated, Light | 64742-14-9 | 5 - 10 |
| Mineral Oil | 8042-47-5 | 1 - 5 |
| Morpholine | 110-91-8 | 0.1 - 1 |
| Propylene Glycol | 57-55-6 | < 0.1 |
| Carbon Black | 1333-86-4 | < 0.1 |

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:

Wash with soap and water. If signs/symptoms develop, get medical attention.

Eye Contact:

If exposed, flush eyes with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms develop, get medical attention.

If Swallowed:

Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

No critical symptoms or effects. See Section 11.1, information on toxicological effects.

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

Not applicable.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

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

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. 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.

6.2. Environmental precautions

Avoid release to the environment.

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

Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (gloves, respirators, etc.) as required.

7.2. Conditions for safe storage including any incompatibilities

Keep from freezing. 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 | Indonesia OELs | TWA(8 hours):20 ppm | SKIN |
| Carbon Black | 1333-86-4 | ACGIH | TWA(inhalable fraction):3 mg/m ³ | A3: Confirmed animal carcin. |
| Carbon Black | 1333-86-4 | Indonesia OELs | TWA(inhalable particulates)(8 hours):3 mg/m ³ | |
| Aluminum Oxide Mineral (non-fibrous) | 1344-28-1 | Indonesia OELs | TWA(Total inhalable dust)(8 hours):10 mg/m ³ ;TWA(inhalable particulates)(8 hours):10 mg/m ³ ;TWA(8 hours):10 mg/m ³ | |
| Aluminum, insoluble compounds | 1344-28-1 | ACGIH | TWA(respirable fraction):1 mg/m ³ | A4: Not class. as human carcin |
| Glycerin | 56-81-5 | Indonesia OELs | TWA(as mist)(8 hours):10 mg/m ³ | |
| Propylene Glycol | 57-55-6 | AIHA | TWA(as aerosol):10 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 | Indonesia OELs | TWA(as mist)(8 hours):5 mg/m ³ ;STEL(as mist)(15 minutes):10 mg/m ³ | |

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

Indonesia OELs : Indonesia. Minister of Manpower and Transmigration Decree No. 13/MEN/X/2011 concerning Threshold Values, Chemical and Physical Factors in the Workplace.

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

None required.

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.

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

When only incidental contact is anticipated, alternative glove material(s) may be used. If contact with the glove does occur, remove immediately and replace with a set of new gloves. For incidental contact, gloves made of the following material(s) may be used:Nitrile Rubber

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:

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 | Gray |
| Odor | Slight Solvent |
| Odor threshold | No Data Available |
| pH | 8.3 - 8.7 |
| Melting point/Freezing point | No Data Available |
| Boiling point/Initial boiling point/Boiling range | Approximately 100 °C |
| Flash Point | Flash point > 93 °C (200 °F) |
| Evaporation rate | 1 [Ref Std:ETHER=1] |
| Flammability | Not Applicable |
| Flammable Limits(LEL) | Not Applicable |
| Flammable Limits(UEL) | Not Applicable |
| Vapor Pressure | No Data Available |
| Relative Vapor Density | 1 [Ref Std:AIR=1] |
| Density | 1 - 1.1 kg/l |
| Relative Density | 1.014 - 1.062 [Ref Std:WATER=1] |
| Water solubility | Negligible |
| Solubility- non-water | No Data Available |
| Partition coefficient: n-octanol/ water | No Data Available |
| Autoignition temperature | Not Applicable |
| Decomposition temperature | No Data Available |
| Kinematic Viscosity | 14,451 mm ² /sec |
| Volatile Organic Compounds | 20.5 % weight [Details:Calculated] |
| Percent volatile | 75.6 % weight [Details:Calculated including water] |
| VOC Less H ₂ O & Exempt Solvents | 500.7 g/l [Details:Calculated] |
| Molecular weight | 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

None known.

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products**Substance**

Carbon monoxide
Carbon dioxide

Condition

Not Specified
Not Specified

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.

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.

May cause additional health effects (see below).

Additional Health Effects:**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 | Inhalation-Vapor(4 hr) | | No data available; calculated ATE >50 mg/l |
| Overall product | Ingestion | | No data available; calculated ATE >5,000 mg/kg |

| | | | |
|--|--------------------------------|-------------------|------------------------------------|
| Aluminum Oxide Mineral (non-fibrous) | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| Aluminum Oxide Mineral (non-fibrous) | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 2.3 mg/l |
| Aluminum Oxide Mineral (non-fibrous) | Ingestion | Rat | LD50 > 5,000 mg/kg |
| Hydrotreated Heavy Naptha (Petroleum) | Dermal | similar compounds | LD50 > 5,000 mg/kg |
| Hydrotreated Heavy Naptha (Petroleum) | Ingestion | similar compounds | LD50 > 5,000 mg/kg |
| Glycerin | Dermal | Rabbit | LD50 estimated to be > 5,000 mg/kg |
| Glycerin | Ingestion | Rat | LD50 > 5,000 mg/kg |
| Distillates (Petroleum), Acid Treated, Light | Ingestion | Rat | LD50 > 15,000 mg/kg |
| Distillates (Petroleum), Acid Treated, Light | Dermal | similar compounds | LD50 > 5,000 mg/kg |
| Mineral Oil | Dermal | Rabbit | LD50 > 2,000 mg/kg |
| Mineral Oil | 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 |
| Carbon Black | Dermal | Rabbit | LD50 > 3,000 mg/kg |
| Carbon Black | Ingestion | Rat | LD50 > 8,000 mg/kg |
| Propylene Glycol | Dermal | Rabbit | LD50 20,800 mg/kg |
| Propylene Glycol | Ingestion | Rat | LD50 22,000 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| Name | Species | Value |
|--|-------------------|---------------------------|
| Aluminum Oxide Mineral (non-fibrous) | Rabbit | No significant irritation |
| Hydrotreated Heavy Naptha (Petroleum) | similar compounds | Mild irritant |
| Glycerin | Rabbit | No significant irritation |
| Distillates (Petroleum), Acid Treated, Light | similar compounds | Mild irritant |
| Mineral Oil | Rabbit | No significant irritation |
| Morpholine | Rabbit | Corrosive |
| Carbon Black | Rabbit | No significant irritation |
| Propylene Glycol | Rabbit | No significant irritation |

Serious Eye Damage/Irritation

| Name | Species | Value |
|--|-------------------|---------------------------|
| Aluminum Oxide Mineral (non-fibrous) | Rabbit | No significant irritation |
| Hydrotreated Heavy Naptha (Petroleum) | similar compounds | No significant irritation |
| Glycerin | Rabbit | No significant irritation |
| Distillates (Petroleum), Acid Treated, Light | similar compounds | No significant irritation |
| Mineral Oil | Rabbit | Mild irritant |
| Morpholine | Rabbit | Corrosive |
| Carbon Black | Rabbit | No significant irritation |
| Propylene Glycol | Rabbit | No significant irritation |

Sensitization:

Skin Sensitization

| Name | Species | Value |
|--|-------------------|----------------|
| Hydrotreated Heavy Naptha (Petroleum) | similar compounds | Not classified |
| Glycerin | Guinea pig | Not classified |
| Distillates (Petroleum), Acid Treated, Light | similar compounds | Not classified |
| Mineral Oil | Guinea pig | Not classified |
| Morpholine | Guinea pig | Not classified |
| Propylene Glycol | Human | 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 |
|--|----------|--|
| Aluminum Oxide Mineral (non-fibrous) | In Vitro | Not mutagenic |
| Hydrotreated Heavy Naptha (Petroleum) | In Vitro | Not mutagenic |
| Distillates (Petroleum), Acid Treated, Light | In Vitro | Not mutagenic |
| Mineral Oil | 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 |
| Carbon Black | In Vitro | Not mutagenic |
| Carbon Black | In vivo | Some positive data exist, but the data are not sufficient for classification |
| Propylene Glycol | In Vitro | Not mutagenic |
| Propylene Glycol | In vivo | Not mutagenic |

Carcinogenicity

| Name | Route | Species | Value |
|--------------------------------------|------------|-------------------------|--|
| Aluminum Oxide Mineral (non-fibrous) | Inhalation | Rat | Not carcinogenic |
| Glycerin | Ingestion | Mouse | Some positive data exist, but the data are not sufficient for classification |
| Mineral Oil | Dermal | Mouse | Not carcinogenic |
| Mineral Oil | Inhalation | Multiple animal species | Not carcinogenic |
| Morpholine | Ingestion | Multiple animal species | Not carcinogenic |
| Morpholine | Inhalation | Rat | Not carcinogenic |
| Carbon Black | Dermal | Mouse | Not carcinogenic |
| Carbon Black | Ingestion | Mouse | Not carcinogenic |
| Carbon Black | Inhalation | Rat | Carcinogenic |
| Propylene Glycol | Dermal | Mouse | Not carcinogenic |
| Propylene Glycol | Ingestion | Multiple animal species | Not carcinogenic |

Reproductive Toxicity

Reproductive and/or Developmental Effects

| Name | Route | Value | Species | Test Result | Exposure Duration |
|----------|-----------|--|---------|-------------|-------------------|
| Glycerin | Ingestion | Not classified for female reproduction | Rat | NOAEL 2,000 | 2 generation |

| | | | | mg/kg/day | |
|------------------|-----------|--|-------------------------|------------------------|----------------------|
| 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 |
| Mineral Oil | Ingestion | Not classified for female reproduction | Rat | NOAEL 4,350 mg/kg/day | 13 weeks |
| Mineral Oil | Ingestion | Not classified for male reproduction | Rat | NOAEL 4,350 mg/kg/day | 13 weeks |
| Mineral Oil | Ingestion | Not classified for development | Rat | NOAEL 4,350 mg/kg/day | during gestation |
| Morpholine | Ingestion | Not classified for development | | NA | |
| Morpholine | Ingestion | Toxic to male reproduction | similar compounds | NOAEL 60 mg/kg/day | 2 generation |
| Propylene Glycol | Ingestion | Not classified for female reproduction | Mouse | NOAEL 10,100 mg/kg/day | 2 generation |
| Propylene Glycol | Ingestion | Not classified for male reproduction | Mouse | NOAEL 10,100 mg/kg/day | 2 generation |
| Propylene Glycol | Ingestion | Not classified for development | Multiple animal species | NOAEL 1,230 mg/kg/day | during organogenesis |

Target Organ(s)

Specific Target Organ Toxicity - single exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|--|------------|-----------------------------------|--|------------------------|---------------------|-------------------|
| Hydrotreated Heavy Naptha (Petroleum) | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | similar health hazards | NOAEL Not available | |
| Distillates (Petroleum), Acid Treated, Light | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | similar health hazards | NOAEL Not available | |
| Morpholine | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | similar health hazards | NOAEL Not available | |
| Propylene Glycol | Ingestion | central nervous system depression | Not classified | Human and animal | NOAEL Not available | |

Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|--|------------|---|--|---------|------------------------|-----------------------|
| Aluminum Oxide Mineral (non-fibrous) | Inhalation | pneumoconiosis | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | occupational exposure |
| Aluminum Oxide Mineral (non-fibrous) | Inhalation | pulmonary fibrosis | Not classified | Human | NOAEL Not available | occupational exposure |
| 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 |
| Distillates (Petroleum), Acid Treated, Light | Inhalation | liver | Not classified | Rat | NOAEL 6 mg/l | 13 weeks |

| | | | | | | |
|--|------------|---|--|-------------------------|-----------------------|-----------------------|
| Distillates (Petroleum), Acid Treated, Light | Inhalation | kidney and/or bladder | Not classified | Rat | LOAEL 1.5 mg/l | 13 weeks |
| Distillates (Petroleum), Acid Treated, Light | Inhalation | hematopoietic system | Not classified | Rat | NOAEL 6 mg/l | 13 weeks |
| Distillates (Petroleum), Acid Treated, Light | Ingestion | liver | Not classified | Rat | NOAEL 1,000 mg/kg/day | 13 weeks |
| Distillates (Petroleum), Acid Treated, Light | Ingestion | kidney and/or bladder | Not classified | Rat | LOAEL 100 mg/kg/day | 13 weeks |
| Distillates (Petroleum), Acid Treated, Light | Ingestion | hematopoietic system eyes | Not classified | Rat | NOAEL 1,000 mg/kg/day | 13 weeks |
| Mineral Oil | Ingestion | hematopoietic system | Not classified | Rat | NOAEL 1,381 mg/kg/day | 90 days |
| Mineral Oil | Ingestion | liver immune system | Not classified | Rat | NOAEL 1,336 mg/kg/day | 90 days |
| 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 | 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 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 |
| Carbon Black | Inhalation | pneumoconiosis | Not classified | Human | NOAEL Not available | occupational exposure |
| Propylene Glycol | Ingestion | hematopoietic system | Not classified | Multiple animal species | NOAEL 1,370 mg/kg/day | 117 days |
| Propylene Glycol | Ingestion | kidney and/or bladder | Not classified | Dog | NOAEL 5,000 mg/kg/day | 104 weeks |

Aspiration Hazard

| Name | Value |
|--|-------------------|
| Hydrotreated Heavy Naphtha (Petroleum) | Aspiration hazard |
| Distillates (Petroleum), Acid Treated, Light | Aspiration hazard |
| 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:

Not acutely toxic to aquatic life by GHS criteria.

Chronic aquatic hazard:

Not chronically toxic to aquatic life by GHS criteria.

No product test data available

| Material | Cas # | Organism | Type | Exposure | Test Endpoint | Test Result |
|--|------------|----------------|--------------------|----------|---------------|-------------|
| Aluminum Oxide Mineral (non-fibrous) | 1344-28-1 | N/A | Experimental | 96 hours | LC50 | >100 mg/l |
| Aluminum Oxide Mineral (non-fibrous) | 1344-28-1 | Green algae | Experimental | 72 hours | EC50 | >100 mg/l |
| Aluminum Oxide Mineral (non-fibrous) | 1344-28-1 | Water flea | Experimental | 48 hours | LC50 | >100 mg/l |
| Aluminum Oxide Mineral (non-fibrous) | 1344-28-1 | Green algae | Experimental | 72 hours | NOEC | >100 mg/l |
| Glycerin | 56-81-5 | Rainbow Trout | Experimental | 96 hours | LC50 | 54,000 mg/l |
| Glycerin | 56-81-5 | Water flea | Experimental | 48 hours | LC50 | 1,955 mg/l |
| Glycerin | 56-81-5 | Bacteria | Experimental | 16 hours | NOEC | 10,000 mg/l |
| Hydrotreated Heavy Naptha (Petroleum) | 64742-48-9 | Green algae | Analogous Compound | 72 hours | EL50 | >1,000 mg/l |
| Hydrotreated Heavy Naptha (Petroleum) | 64742-48-9 | Rainbow Trout | Analogous Compound | 96 hours | LL50 | >1,000 mg/l |
| Hydrotreated Heavy Naptha (Petroleum) | 64742-48-9 | Water flea | Analogous Compound | 48 hours | EL50 | >1,000 mg/l |
| Hydrotreated Heavy Naptha (Petroleum) | 64742-48-9 | Fathead Minnow | Analogous Compound | 32 days | NOEL | >100 mg/l |
| Hydrotreated Heavy Naptha (Petroleum) | 64742-48-9 | Green algae | Analogous Compound | 72 hours | NOEL | 1,000 mg/l |
| Hydrotreated Heavy Naptha (Petroleum) | 64742-48-9 | Water flea | Experimental | 21 days | NOEL | >1 mg/l |
| Distillates (Petroleum), Acid Treated, Light | 64742-14-9 | Green algae | Estimated | 72 hours | EL50 | >1,000 mg/l |
| Distillates (Petroleum), Acid Treated, Light | 64742-14-9 | Rainbow Trout | Estimated | 96 hours | LL50 | >1,000 mg/l |
| Distillates (Petroleum), Acid Treated, Light | 64742-14-9 | Water flea | Estimated | 48 hours | EL50 | >1,000 mg/l |
| Distillates (Petroleum), Acid | 64742-14-9 | Green algae | Estimated | 72 hours | NOEL | >1,000 mg/l |

| | | | | | | |
|------------------|-----------|------------------|--------------------|------------|--------------------------------|--------------------------|
| Treated, Light | | | | | | |
| Mineral Oil | 8042-47-5 | Water flea | Analogous Compound | 48 hours | EL50 | >100 mg/l |
| Mineral Oil | 8042-47-5 | Bluegill | Experimental | 96 hours | LL50 | >100 mg/l |
| Mineral Oil | 8042-47-5 | Green algae | Analogous Compound | 72 hours | NOEL | 100 mg/l |
| Mineral Oil | 8042-47-5 | Water flea | Analogous Compound | 21 days | NOEL | >100 mg/l |
| 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 |
| Carbon Black | 1333-86-4 | Green algae | Experimental | 72 hours | No tox obs at lmt of water sol | >100 mg/l |
| Carbon Black | 1333-86-4 | Zebra Fish | Experimental | 96 hours | No tox obs at lmt of water sol | >100 mg/l |
| Carbon Black | 1333-86-4 | Green algae | Experimental | 72 hours | No tox obs at lmt of water sol | 100 mg/l |
| Carbon Black | 1333-86-4 | Activated sludge | Experimental | 3 hours | NOEC | >800 mg/l |
| Propylene Glycol | 57-55-6 | Amphipod | Experimental | 10 days | LC50 | 6,983 mg/kg (Dry Weight) |
| Propylene Glycol | 57-55-6 | Green algae | Experimental | 96 hours | EC50 | 19,000 mg/l |
| Propylene Glycol | 57-55-6 | Mysid Shrimp | Experimental | 96 hours | LC50 | 18,800 mg/l |
| Propylene Glycol | 57-55-6 | Rainbow Trout | Experimental | 96 hours | LC50 | 40,613 mg/l |
| Propylene Glycol | 57-55-6 | Water flea | Experimental | 48 hours | EC50 | 18,340 mg/l |
| Propylene Glycol | 57-55-6 | Green algae | Experimental | 96 hours | NOEC | 15,000 mg/l |
| Propylene Glycol | 57-55-6 | Water flea | Experimental | 7 days | NOEC | 13,020 mg/l |
| Propylene Glycol | 57-55-6 | Bacteria | Experimental | 18 hours | NOEC | >20,000 mg/l |

12.2. Persistence and degradability

| Material | CAS No. | Test Type | Duration | Study Type | Test Result | Protocol |
|--|------------|-----------------------------------|----------|--------------------------------|----------------------------------|--------------------------------|
| Aluminum Oxide Mineral (non-fibrous) | 1344-28-1 | Data not availbl-insufficient | N/A | N/A | N/A | N/A |
| Glycerin | 56-81-5 | Experimental Biodegradation | 14 days | Biological Oxygen Demand | 63 %BOD/ThOD | OECD 301C - MITI (I) |
| Hydrotreated Heavy Naptha (Petroleum) | 64742-48-9 | Analogous Compound Biodegradation | 28 days | Biological Oxygen Demand | 31.3 %BOD/ThOD | OECD 301F - Manometric Respiro |
| Distillates (Petroleum), Acid Treated, Light | 64742-14-9 | Estimated Biodegradation | 28 days | Biological Oxygen Demand | 69 %BOD/ThOD | OECD 301F - Manometric Respiro |
| Mineral Oil | 8042-47-5 | Experimental Biodegradation | 28 days | Carbon dioxide evolution | 0 %CO2 evolution/THCO2 evolution | OECD 301B - Mod. Sturm or CO2 |
| 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 |
| Carbon Black | 1333-86-4 | Data not availbl-insufficient | N/A | N/A | N/A | N/A |
| Propylene Glycol | 57-55-6 | Experimental Biodegradation | 28 days | Biological Oxygen Demand | 90 %BOD/ThOD | OECD 301C - MITI (I) |
| Propylene Glycol | 57-55-6 | Experimental Biodegradation | 64 days | Dissolv. Organic Carbon Deplet | 95.8 %removal of DOC | OECD 306(Misc)-Biodegrad. Seaw |

12.3. Bioaccumulative potential

| Material | CAS No. | Test Type | Duration | Study Type | Test Result | Protocol |
|--|------------|---|----------|---|-------------|--------------------------------|
| Aluminum Oxide Mineral (non-fibrous) | 1344-28-1 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Glycerin | 56-81-5 | Experimental Bioconcentration | | Log of Octanol/H ₂ O part. coeff | -1.75 | similar to OECD 107 |
| Hydrotreated Heavy Naptha (Petroleum) | 64742-48-9 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Distillates (Petroleum), Acid Treated, Light | 64742-14-9 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Mineral Oil | 8042-47-5 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Morpholine | 110-91-8 | Experimental BCF - Fish | 42 days | Bioaccumulation Factor | <2.8 | OECD305-Bioconcentration |
| Morpholine | 110-91-8 | Experimental Bioconcentration | | Log of Octanol/H ₂ O part. coeff | -2.55 | OECD 107 log Kow shke flsk mtd |
| Carbon Black | 1333-86-4 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Propylene Glycol | 57-55-6 | Experimental Bioconcentration | | Log of Octanol/H ₂ O part. coeff | -1.07 | EC A.8 Partition Coefficient |

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.

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. 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

Local Regulations

Land Transport: In accordance with Director General of Land Transportation Decree No. SK.725/AJ.302/DRJD/2004 which refer to UN Standard.

Sea Transport: In accordance with Minister of Transportation Decree No. KM 2/2010 which refer to IMDG Code Standard.

International Regulations

UN No.: Not applicable

UN Proper Shipping Name: Not applicable

Transportation Class (IMO): Not applicable

Transportation Class (IATA): Not applicable

Packing Group: Not applicable**Marine Pollutant:** Not applicable

SECTION 15: Regulatory information

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

Global inventory status

Contact 3M for more information. The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

Local Inventory Status

Addendum I Government Regulation No. 74/2001:

List of Hazardous Substances Approved for Use :

ETHYL ACRYLATE is listed as a Hazardous Substance Approved for Use.

ETHYLENE OXIDE is listed as a Hazardous Substance Approved for Use.

ETHYLENEDIAMINE is listed as a Hazardous Substance Approved for Use.

Glycerin is listed as a Hazardous Substance Approved for Use.

PROPYLENE OXIDE is listed as a Hazardous Substance Approved for Use.

Addendum II Government Regulation No. 74/2001:

Tab.1 List of Prohibited Substances for Use:

None of the substances are listed as a Prohibited Substance for Use.

Addendum II Government Regulation No. 74/2001:

Tab.2 List of Restricted Substances for Use:

ETHYLENE OXIDE is listed as a Restricted Substance for Use.

Addendum I Ministry of Health Regulation No. 472/1996:

List and Classification of Hazardous Substances for Health:

1,4-DIOXANE is listed and classified as a Hazardous Substance for Health.

2-METHOXYETHANOL is listed and classified as a Hazardous Substance for Health.

ETHYLENE OXIDE is listed and classified as a Hazardous Substance for Health.

PROPYLENE OXIDE is listed and classified as a Hazardous Substance for Health.

Addendum I Act of Minister of Industry and Trade No. 254/MPP/KEP/2000

List of Hazardous Substances that are Regulated to Import Trade System:

None of the substances are listed and classified as a Hazardous Substance that is Regulated to Import Trade System.

SECTION 16: Other information

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3M Indonesia SDSs are available at https://www.3m.co.id/3M/en_ID/company-id/