



Safety Data Sheet

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|------------------------|------------|-------------------------|------------|
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This Safety Data Sheet has been prepared in accordance with the REACH Regulation (1907/2006), as amended for GB.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

3M™ Finesse-it™ Finishing Material [140]

Product Identification Numbers

GC-8002-5246-9 UU-0111-1270-1

7000034053 7100236898

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Automotive.

1.3. Details of the supplier of the safety data sheet

Address: 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.
Telephone: +44 (0)1344 858 000
E Mail: tox.uk@mmm.com
Website: www.3M.com/uk

1.4. Emergency telephone number

+44 (0)1344 858 000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

The retained CLP Regulation (EU) No 1272/2008 as amended for Great Britain

The health and environmental classifications of this material have been derived using the calculation method, except in cases where test data are available or the physical form impacts classification. Classification(s) based on test data or physical form are noted below, if applicable.

The aspiration hazard classification is not required due to the product's viscosity.

CLASSIFICATION:

Specific Target Organ Toxicity-Repeated Exposure, Category 2 - STOT RE 2; H373

For full text of H phrases, see Section 16.

2.2. Label elements**The retained CLP Regulation (EU) No 1272/2008 as amended for Great Britain****SIGNAL WORD**

WARNING.

Symbols

GHS08 (Health Hazard) |

Pictograms

| Ingredient | CAS Nbr | EC No. | % by Wt |
|---|---------|-----------|-----------|
| Hydrocarbons C9-12 N-alkanes, isoalkanes cyclic aromatics (2-25%) | | 919-446-0 | 0.5 - 1.5 |

HAZARD STATEMENTS:

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

PRECAUTIONARY STATEMENTS**Prevention:**

P260A Do not breathe vapours.

3% of the mixture consists of components of unknown acute oral toxicity.

Contains 1% of components with unknown hazards to the aquatic environment.

2.3. Other hazards

None known.

This material does not contain any substances that are assessed to be a PBT or vPvB

SECTION 3: Composition/information on ingredients**3.1. Substances**

Not applicable

3.2. Mixtures

| Ingredient | Identifier(s) | % | Classification according to Regulation (EC) No. 1272/2008 [CLP], as amended for GB |
|----------------------------------|--------------------|---------|--|
| Non-Hazardous Ingredients | Trade Secret | 40 - 70 | Substance not classified as hazardous |
| Hydrocarbons, C9-C11, n-alkanes, | (EC-No.) 919-857-5 | < 20 | Flam. Liq. 3, H226 |

| | | | |
|--|---|-----------|---|
| isoalkanes, cyclics, < 2% aromatics | | | Asp. Tox. 1, H304 STOT SE 3, H336 EUH066 |
| White mineral oil (petroleum) | (CAS-No.) 8042-47-5 (EC-No.) 232-455-8 | 5 - 15 | Asp. Tox. 1, H304 |
| Hydrocarbons C9-12 N-alkanes, isoalkanes cyclic aromatics (2-25%) | (EC-No.) 919-446-0 | 0.5 - 1.5 | Aquatic Chronic 2, H411 Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H336 EUH066 STOT RE 1, H372 |
| Aluminium oxide | (CAS-No.) 1344-28-1 (EC-No.) 215-691-6 | 1 - 10 | Substance with a national occupational exposure limit |
| Ethylene glycol monoricinoleate | (CAS-No.) 106-17-2 (EC-No.) 203-369-8 | 1 - 5 | Aquatic Acute 1, H400,M=1 Aquatic Chronic 3, H412 |
| morpholine | (CAS-No.) 110-91-8 (EC-No.) 203-815-1 | < 0.5 | Flam. Liq. 3, H226 Acute Tox. 3, H311 Acute Tox. 4, H332 Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Repr. 2, H361f |

Any entry in the Identifier(s) column that begins with the numbers 6, 7, 8, or 9 are a Provisional List Number provided by ECHA pending publication of the official EC Inventory Number for the substance. Please see section 16 for the full text of any H statements referred to in this section

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

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

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

If swallowed

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

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

The most important symptoms and effects based on the GB CLP classification include:
Target organ effects. 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. 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.

5.3. Advice 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 vapours, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapours 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 dykes 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 that is resistant to polar solvents. 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 closed container approved for transportation by appropriate authorities. Clean up residue with water. Seal the container. Dispose of collected material as soon as possible.

6.4. Reference to other sections

Refer to Section 8 and Section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

For industrial/occupational use only. Not for consumer sale or use. Do not use in a confined area with minimal air exchange. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not breathe dust/fume/gas/mist/vapours/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 oxidising agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (eg. gloves, respirators...) as required. Vapours may travel long distances along the ground or floor to an ignition source and flash back.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep cool. Protect from sunlight. Store away from heat. Store away from acids. Store away from oxidising agents.

7.3. Specific end use(s)

See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

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 | CAS Nbr | Agency | Limit type | Additional comments |
|-----------------|-----------|--------|--|---------------------|
| morpholine | 110-91-8 | UK HSC | TWA: 36 mg/m ³ (10 ppm); STEL: 72 mg/m ³ (20 ppm) | SKIN |
| Aluminium oxide | 1344-28-1 | UK HSC | TWA(as respirable dust):4 mg/m ³ ;TWA(as inhalable dust):10 mg/m ³ | |

UK HSC : UK Health and Safety Commission

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

Biological limit values

No biological limit values exist for any of the components listed in Section 3 of this safety data sheet.

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

Applicable Norms/Standards

Use eye protection conforming to EN 166

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:

| Material | Thickness (mm) | Breakthrough Time |
|------------------|-------------------|-------------------|
| Polymer laminate | No data available | No data available |

Applicable Norms/Standards

Use gloves tested to EN 374

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 vapours and particulates

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

Applicable Norms/Standards

Use a respirator conforming to EN 140 or EN 136: filter types A & P

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|---|
| Physical state | Liquid. |
| Specific Physical Form: | Creamy, White Liquid |
| Colour | White |
| Odor | Little Odor |
| Odour threshold | <i>No data available.</i> |
| Melting point/freezing point | <i>No data available.</i> |
| Boiling point/boiling range | 100 °C |
| Flammability (solid, gas) | Not applicable. |
| Flammable Limits(LEL) | 0.8 % |
| Flammable Limits(UEL) | 6 % |
| Flash point | 64 °C |
| Autoignition temperature | <i>No data available.</i> |
| Decomposition temperature | <i>No data available.</i> |
| pH | 8.4 - 9.2 |
| Kinematic Viscosity | 10,256 mm ² /sec |
| Water solubility | Complete |
| Solubility- non-water | Complete [<i>Details: Complete</i>] |
| Partition coefficient: n-octanol/water | <i>No data available.</i> |
| Vapour pressure | <i>No data available.</i> |
| Density | 0.975 - 0.995 g/ml |
| Relative density | 0.975 - 0.995 [<i>Ref Std: WATER=1</i>] |
| Relative Vapour Density | 1 [<i>Ref Std: AIR=1</i>] |

9.2. Other information

9.2.2 Other safety characteristics

| | |
|-------------------------------|---------------------------|
| EU Volatile Organic Compounds | <i>No data available.</i> |
| Evaporation rate | <i>No data available.</i> |
| Percent volatile | 70 % |

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 polymerisation will not occur.

10.4 Conditions to avoid

Sparks and/or flames.
Heat.

10.5 Incompatible materials

Alkali and alkaline earth metals.
Strong oxidising agents.

10.6 Hazardous decomposition products

| <u>Substance</u> | <u>Condition</u> |
|------------------|------------------|
| Hydrocarbons. | Not specified. |
| Carbon monoxide | Not specified. |
| Carbon dioxide. | Not specified. |

SECTION 11: Toxicological information

The information below may not agree with the material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from 3M assessments.

11.1. Information on hazard classes as defined in the retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain.**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. Dust from cutting, grinding, sanding or machining may cause irritation of the respiratory system: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, nose and throat pain. May cause additional health effects (see below).

Skin contact

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

Eye contact

Dust created by cutting, grinding, sanding, or machining may cause eye irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Ingestion

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea. May cause additional health effects (see below).

Additional Health Effects:**Prolonged or repeated exposure may cause target organ effects:**

Central neuropathy: Signs/symptoms may include irritability, memory impairment, personality changes, sleep disorders, and decreased ability to concentrate.

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 | Ingestion | | No data available; calculated ATE >5,000 mg/kg |
| Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics | Inhalation-Vapour | Professional judgement | LC50 estimated to be 20 - 50 mg/l |
| Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics | Dermal | Rabbit | LD50 > 5,000 mg/kg |
| Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics | Ingestion | Rat | LD50 > 5,000 mg/kg |
| White mineral oil (petroleum) | Dermal | Rabbit | LD50 > 2,000 mg/kg |
| White mineral oil (petroleum) | Ingestion | Rat | LD50 > 5,000 mg/kg |
| Aluminium oxide | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| Aluminium oxide | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 2.3 mg/l |
| Aluminium oxide | Ingestion | Rat | LD50 > 5,000 mg/kg |
| Hydrocarbons C9-12 N-alkanes, isoalkanes cyclic aromatics (2-25%) | Dermal | Rat | LD50 > 3,400 mg/kg |
| Hydrocarbons C9-12 N-alkanes, isoalkanes cyclic aromatics (2-25%) | Inhalation-Vapour (4 hours) | Rat | LC50 > 16.2 mg/l |
| Hydrocarbons C9-12 N-alkanes, isoalkanes cyclic aromatics (2-25%) | Ingestion | Rat | LD50 > 15,000 mg/kg |
| morpholine | Dermal | Rabbit | LD50 500 mg/kg |
| morpholine | Inhalation-Vapour | Rat | LC50 estimated to be 10 - 20 mg/l |
| morpholine | Ingestion | Rat | LD50 1,680 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| Name | Species | Value |
|--|---------|---------------------------|
| Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics | Rabbit | Mild irritant |
| White mineral oil (petroleum) | Rabbit | No significant irritation |
| Aluminium oxide | Rabbit | No significant irritation |
| Hydrocarbons C9-12 N-alkanes, isoalkanes cyclic aromatics (2-25%) | Rabbit | Minimal irritation |
| morpholine | Rabbit | Corrosive |

Serious Eye Damage/Irritation

| Name | Species | Value |
|--|---------|---------------------------|
| Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics | Rabbit | Mild irritant |
| White mineral oil (petroleum) | Rabbit | Mild irritant |
| Aluminium oxide | Rabbit | No significant irritation |
| Hydrocarbons C9-12 N-alkanes, isoalkanes cyclic aromatics (2-25%) | Rabbit | No significant irritation |
| morpholine | Rabbit | Corrosive |

Skin Sensitisation

| Name | Species | Value |
|--|------------|----------------|
| Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics | Guinea pig | Not classified |
| White mineral oil (petroleum) | Guinea pig | Not classified |
| Hydrocarbons C9-12 N-alkanes, isoalkanes cyclic aromatics (2-25%) | Guinea pig | Not classified |

| | | |
|------------|------------|----------------|
| morpholine | Guinea pig | Not classified |
|------------|------------|----------------|

Respiratory Sensitisation

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

Germ Cell Mutagenicity

| Name | Route | Value |
|--|----------|--|
| Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics | In Vitro | Not mutagenic |
| Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics | In vivo | Not mutagenic |
| White mineral oil (petroleum) | In Vitro | Not mutagenic |
| Aluminium oxide | 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 |

Carcinogenicity

| Name | Route | Species | Value |
|--|----------------|-------------------------|------------------|
| Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics | Not specified. | Not available | Not carcinogenic |
| White mineral oil (petroleum) | Dermal | Mouse | Not carcinogenic |
| White mineral oil (petroleum) | Inhalation | Multiple animal species | Not carcinogenic |
| Aluminium oxide | Inhalation | 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 |
|--|----------------|--|-------------------|-----------------------|-------------------|
| Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics | Not specified. | Not classified for female reproduction | Rat | NOAEL Not available | 1 generation |
| Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics | Not specified. | Not classified for male reproduction | Rat | NOAEL Not available | 28 days |
| Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics | Not specified. | Not classified for development | Rat | NOAEL Not available | during gestation |
| White mineral oil (petroleum) | Ingestion | Not classified for female reproduction | Rat | NOAEL 4,350 mg/kg/day | 13 weeks |
| White mineral oil (petroleum) | Ingestion | Not classified for male reproduction | Rat | NOAEL 4,350 mg/kg/day | 13 weeks |
| White mineral oil (petroleum) | Ingestion | Not classified for development | Rat | NOAEL 4,350 mg/kg/day | during gestation |
| morpholine | Ingestion | Not classified for development | | NA | |
| morpholine | Ingestion | Toxic to male reproduction | similar compounds | NOAEL 60 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 |
|------|-------|-----------------|-------|---------|-------------|-------------------|
|------|-------|-----------------|-------|---------|-------------|-------------------|

| | | | | | | |
|--|------------|-----------------------------------|--|------------------------|---------------------|--|
| Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human and animal | NOAEL Not available | |
| Hydrocarbons C9-12 N-alkanes, isoalkanes cyclic aromatics (2-25%) | Inhalation | central nervous system depression | May cause drowsiness or dizziness | similar compounds | NOAEL not available | |
| Hydrocarbons C9-12 N-alkanes, isoalkanes cyclic aromatics (2-25%) | Ingestion | central nervous system depression | May cause drowsiness or dizziness | similar compounds | 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 | |

Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|---|------------|---|--|------------|-----------------------|-----------------------|
| White mineral oil (petroleum) | Ingestion | hematopoietic system | Not classified | Rat | NOAEL 1,381 mg/kg/day | 90 days |
| White mineral oil (petroleum) | Ingestion | liver immune system | Not classified | Rat | NOAEL 1,336 mg/kg/day | 90 days |
| Aluminium oxide | Inhalation | pneumoconiosis | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | occupational exposure |
| Aluminium oxide | Inhalation | pulmonary fibrosis | Not classified | Human | NOAEL Not available | occupational exposure |
| Hydrocarbons C9-12 N-alkanes, isoalkanes cyclic aromatics (2-25%) | Inhalation | central nervous system | Causes damage to organs through prolonged or repeated exposure | Human | NOAEL not available | occupational exposure |
| 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 |

Aspiration Hazard

| Name | Value |
|--|-------------------|
| Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics | Aspiration hazard |
| White mineral oil (petroleum) | Aspiration hazard |
| Hydrocarbons C9-12 N-alkanes, isoalkanes cyclic aromatics (2-25%) | 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.

11.2. Information on other hazards

This material does not contain any substances that are assessed to be an endocrine disruptor for human health.

SECTION 12: Ecological information

The information below may not agree with the material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

12.1. Toxicity

No product test data available.

| Material | CAS # | Organism | Type | Exposure | Test endpoint | Test result |
|--|-----------|---------------|---|----------|---------------|-------------|
| Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics | 919-857-5 | N/A | Data not available or insufficient for classification | N/A | N/A | N/A |
| Hydrocarbons C9-12 N-alkanes, isoalkanes cyclic aromatics (2-25%) | 919-446-0 | Green algae | Experimental | 72 hours | EL50 | 4.1 mg/l |
| Hydrocarbons C9-12 N-alkanes, isoalkanes cyclic aromatics (2-25%) | 919-446-0 | Rainbow trout | Experimental | 96 hours | LL50 | 30 mg/l |
| Hydrocarbons C9-12 N-alkanes, isoalkanes cyclic aromatics (2-25%) | 919-446-0 | Water flea | Experimental | 48 hours | EL50 | 22 mg/l |
| Hydrocarbons C9-12 N-alkanes, isoalkanes cyclic aromatics (2-25%) | 919-446-0 | Green algae | Experimental | 72 hours | NOEL | 0.76 mg/l |
| Hydrocarbons C9-12 N-alkanes, isoalkanes cyclic aromatics (2-25%) | 919-446-0 | Water flea | Experimental | 21 days | EL10 | 0.316 mg/l |
| White mineral oil (petroleum) | 8042-47-5 | Water flea | Analogous Compound | 48 hours | EL50 | >100 mg/l |
| White mineral oil (petroleum) | 8042-47-5 | Bluegill | Experimental | 96 hours | LL50 | >100 mg/l |
| White mineral oil (petroleum) | 8042-47-5 | Green algae | Analogous Compound | 72 hours | NOEL | 100 mg/l |
| White mineral oil (petroleum) | 8042-47-5 | Water flea | Analogous Compound | 21 days | NOEL | >100 mg/l |
| Aluminium oxide | 1344-28-1 | Fish | Experimental | 96 hours | LC50 | >100 mg/l |
| Aluminium oxide | 1344-28-1 | Green algae | Experimental | 72 hours | EC50 | >100 mg/l |
| Aluminium oxide | 1344-28-1 | Water flea | Experimental | 48 hours | LC50 | >100 mg/l |
| Aluminium oxide | 1344-28-1 | Green algae | Experimental | 72 hours | NOEC | >100 mg/l |
| Ethylene glycol monoricinoleate | 106-17-2 | Green algae | Analogous Compound | 72 hours | EC50 | 0.76 mg/l |
| Ethylene glycol monoricinoleate | 106-17-2 | Water flea | Analogous Compound | 48 hours | EC50 | 1.8 mg/l |

| | | | | | | |
|---------------------------------|----------|------------------|--------------------|------------|-------|-------------|
| Ethylene glycol monoricinoleate | 106-17-2 | Green algae | Analogous Compound | 72 hours | NOEC | 0.25 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 |

12.2. Persistence and degradability

| Material | CAS Nbr | Test type | Duration | Study Type | Test result | Protocol |
|--|-----------|-----------------------------------|----------|--------------------------------|------------------------------------|-------------------------------------|
| Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics | 919-857-5 | Data not available/insufficient | N/A | N/A | N/A | N/A |
| Hydrocarbons C9-12 N-alkanes, isoalkanes cyclic aromatics (2-25%) | 919-446-0 | Analogous Compound Biodegradation | 28 days | BOD | 74.7 %BOD/ThOD | OECD 301F - Manometric respirometry |
| White mineral oil (petroleum) | 8042-47-5 | Experimental Biodegradation | 28 days | CO2 evolution | 0 %CO2 evolution/THCO2 evolution | OECD 301B - Modified sturm or CO2 |
| Aluminium oxide | 1344-28-1 | Data not available/insufficient | N/A | N/A | N/A | N/A |
| Ethylene glycol monoricinoleate | 106-17-2 | Analogous Compound Biodegradation | 28 days | CO2 evolution | 100 %CO2 evolution/THCO2 evolution | OECD 301B - Modified 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 |

12.3 : Bioaccumulative potential

| Material | Cas No. | Test type | Duration | Study Type | Test result | Protocol |
|--|-----------|---|----------|------------------------|-------------|--------------------------|
| Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics | 919-857-5 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Hydrocarbons C9-12 N-alkanes, isoalkanes cyclic aromatics (2-25%) | 919-446-0 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| White mineral oil (petroleum) | 8042-47-5 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Aluminium oxide | 1344-28-1 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Ethylene glycol monoricinoleate | 106-17-2 | Modeled Bioconcentration | | Bioaccumulation factor | 10 | Catalogic™ |
| Ethylene glycol monoricinoleate | 106-17-2 | Modeled Bioconcentration | | Log Kow | 5.9 | Episuite™ |
| morpholine | 110-91-8 | Experimental BCF - Fish | 42 days | Bioaccumulation factor | <2.8 | OECD305-Bioconcentration |
| morpholine | 110-91-8 | Experimental | | Log Kow | -2.55 | OECD 107 log Kow shke |

| | | | | |
|--|------------------|--|--|----------|
| | Bioconcentration | | | flsk mtd |
|--|------------------|--|--|----------|

12.4. Mobility in soil

| Material | Cas No. | Test type | Study Type | Test result | Protocol |
|---------------------------------|----------|--------------------------|------------|-------------|-----------|
| Ethylene glycol monoricinoleate | 106-17-2 | Modeled Mobility in Soil | Koc | 590 l/kg | Episuite™ |

12.5. Results of the PBT and vPvB assessment

This material does not contain any substances that are assessed to be a PBT or vPvB

12.6. Other adverse effects

This material does not contain any substances that are assessed to be an endocrine disruptor for environmental effects

SECTION 13: Disposal considerations

13.1 Waste treatment methods

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

Incinerate in a permitted waste incineration facility. Dispose of waste product in a permitted industrial waste 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.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

EU waste code (product as sold)

08 01 11* Waste paint and varnish containing organic solvents or other dangerous substances
120109* Machining emulsions and solutions free of halogens

SECTION 14: Transportation information

Not hazardous for transportation.

| | Ground Transport (ADR) | Air Transport (IATA) | Marine Transport (IMDG) |
|--|------------------------|----------------------|-------------------------|
| 14.1 UN number | No data available. | No data available. | No data available. |
| 14.2 UN proper shipping name | No data available. | No data available. | No data available. |
| 14.3 Transport hazard class(es) | No data available. | No data available. | No data available. |
| 14.4 Packing group | No data available. | No data available. | No data available. |
| 14.5 Environmental hazards | No data available. | No data available. | No data available. |

| | | | |
|--|--|--|--|
| 14.6 Special precautions for user | Please refer to the other sections of the SDS for further information. | Please refer to the other sections of the SDS for further information. | Please refer to the other sections of the SDS for further information. |
| 14.7 Transport in bulk according to Annex II of Marpol 73/78 and IBC Code | No data available. | No data available. | No data available. |
| Control Temperature | No data available. | No data available. | No data available. |
| Emergency Temperature | No data available. | No data available. | No data available. |
| ADR Classification Code | No data available. | No data available. | No data available. |
| IMDG Segregation Code | No data available. | No data available. | No data available. |

Please contact the address or phone number listed on the first page of the SDS for additional information on the transport/shipment of the material by rail (RID) or inland waterways (ADN).

SECTION 15: Regulatory information

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

Carcinogenicity

Ingredient

CAS Nbr

Classification

Regulation

morpholine

110-91-8

Gr. 3: Not classifiable

International Agency for Research on Cancer

Global inventory status

Contact 3M for more information.

COMAH Regulation, SI 2015/483

Seveso hazard categories, Annex 1, Part 1

None

Seveso named dangerous substances, Annex 1, Part 2

| Dangerous Substances | Identifier(s) | Qualifying quantity (tonnes) for the application of | |
|----------------------|---------------|---|-------------------------|
| | | Lower-tier requirements | Upper-tier requirements |
| morpholine | 110-91-8 | 10 | 50 |

Regulation (EU) No 649/2012, as amended for GB

No chemicals listed

15.2. Chemical Safety Assessment

A chemical safety assessment has not been carried out for this substance/mixture in accordance with Regulation (EC) No 1907/2006, as amended for GB.

SECTION 16: Other information**List of relevant H statements**

| | |
|--------|--|
| EUH066 | Repeated exposure may cause skin dryness or cracking. |
| H226 | Flammable liquid and vapour. |
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H311 | Toxic in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H318 | Causes serious eye damage. |
| H332 | Harmful if inhaled. |
| H336 | May cause drowsiness or dizziness. |
| H361f | Suspected of damaging fertility. |
| H372 | Causes damage to organs through prolonged or repeated exposure. |
| H373 | May cause damage to organs through prolonged or repeated exposure: nervous system. |
| H400 | Very toxic to aquatic life. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |

Revision information:

Section 1: Product name 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. In addition, this SDS is being provided to convey health and safety information. If you are the importer of record of this product into the European Union, you are responsible for all regulatory requirements, including, but not limited to, product registrations/notifications, substance volume tracking, and potential substance registration.

3M SDSs for Great Britain are available at www.3M.com/uk

For Northern Ireland documents, please contact your 3M representative to obtain a copy.