



Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the Malaysia Occupational Safety and Health (Chemical Classification, Labelling and Safety Data Sheets) Regulations 2013.

SECTION 1: Identification

1.1. Product identifier

3M™ Scotch-Seal™ Industrial Sealant 800 Reddish Brown

Product Identification Numbers

| | | | | |
|----------------|----------------|----------------|----------------|----------------|
| 62-0800-0635-6 | 62-0800-2631-3 | 62-0800-2635-4 | 62-0800-7530-2 | 62-0800-8530-1 |
| 62-0800-9530-0 | XS-0414-0879-9 | | | |

1.2. Recommended use and restrictions on use

Recommended use

Industrial Sealant, Industrial use

1.3. Supplier's details

ADDRESS: 3M Malaysia Sdn. Bhd., Level 8, Block F, Oasis Square, No.2, Jalan PJU 1A/7A, Ara Damansara 47301 Petaling, Jaya, Selangor

Telephone: 03-7884 2888

E Mail: 3mmyehsr@mmm.com

Website: www.3M.com.my

1.4. Emergency telephone number

+60 03-7884 2888

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Flammable Liquid: Category 2.
 Serious Eye Damage/Irritation: Category 2.
 Carcinogenicity: Category 2.
 Reproductive Toxicity: Category 1B.
 Chronic Aquatic Toxicity: Category 2.

2.2. Label elements

Signal word

Danger

Symbols

Flame | Exclamation mark | Health Hazard | Environment |

Pictograms



Hazard Statements:

- H225 Highly flammable liquid and vapor.
- H319 Causes serious eye irritation.
- H351 Suspected of causing cancer.
- H360 May damage fertility or the unborn child.
- H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention:

- P201 Obtain special instructions before use.
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P273 Avoid release to the environment.
- P281 Use personal protective equipment as required.

Response:

- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P308 + P313 IF exposed or concerned: Get medical advice/attention.
- 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/container in accordance with applicable local/regional/national/international regulations.

2.3. Other hazards

May cause drowsiness or dizziness.

SECTION 3: Composition/information on ingredients

This material is a mixture.

| Ingredient | C.A.S. No. | % by Wt |
|---------------------------------|------------|---------|
| Methyl Ethyl Ketone | 78-93-3 | 35 - 50 |
| Acrylonitrile-Butadiene Polymer | 9003-18-3 | 10 - 20 |
| Glycerol Esters of Rosin Acids | 8050-31-5 | 5 - 15 |
| Limestone | 1317-65-3 | 5 - 10 |
| Methyl Isobutyl Ketone | 108-10-1 | 3 - 8 |
| Titanium Dioxide | 13463-67-7 | < 7 |
| tri(Butoxyethyl) Phosphate | 78-51-3 | 1 - 5 |
| Iron Oxide (Fe2O3) | 1309-37-1 | 1 - 5 |
| Oxide glass chemicals | 65997-17-3 | 1 - 5 |

| | | |
|--|------------|-------|
| Salicylic Acid | 69-72-7 | < 3 |
| Zinc Oxide | 1314-13-2 | < 2.4 |
| Toluene | 108-88-3 | < 1 |
| N-Phenylbenzenamine, reaction product with diisobutylene | 68411-46-1 | < 0.4 |
| Paraffin Oils | 8012-95-1 | < 0.2 |

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:

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

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

Central nervous system depression (headache, dizziness, drowsiness, incoordination, nausea, slurred speech, giddiness, and unconsciousness).

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

Aldehydes
 Hydrocarbons
 Carbon monoxide
 Carbon dioxide
 Hydrogen Cyanide
 Ketones
 Oxides of Nitrogen
 Oxides of Zinc

Condition

During Combustion
 During Combustion
 During Combustion
 During Combustion
 During Combustion
 During Combustion
 During Combustion
 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**

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up

Contain spill. Cover spill area with a fire-extinguishing foam. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

For industrial/occupational use only. Not for consumer sale or use. 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. Avoid release to the environment. 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 cool. Keep container tightly closed. Store away from heat. Store away from acids. 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 |
|------------------------|------------|---------------|---|---|
| Methyl Isobutyl Ketone | 108-10-1 | ACGIH | TWA:20 ppm;STEL:75 ppm | A3: Confirmed animal carcin. |
| Methyl Isobutyl Ketone | 108-10-1 | Malaysia OELs | TWA(8 hours):205 mg/m ³ (50 ppm) | |
| Toluene | 108-88-3 | ACGIH | TWA:20 ppm | A4: Not class. as human carcin, Ototoxicant |

| | | | | |
|--|------------|-------------------------|---|--------------------------------|
| Toluene | 108-88-3 | Malaysia OELs | TWA(8 hours):188 mg/m3(50 ppm) | SKIN |
| Iron Oxide (Fe2O3) | 1309-37-1 | ACGIH | TWA(respirable fraction):5 mg/m3 | A4: Not class. as human carcin |
| Iron Oxide (Fe2O3) | 1309-37-1 | Malaysia OELs | TWA (proposed)(as Fe, dust and fume)(8 hours):5 mg/m3(2 ppm) | |
| DUST, INERT OR NUISANCE | 1314-13-2 | Malaysia OELs | TWA (proposed)(respirable particles)(8 hours):3 mg/m3;TWA (proposed)(Inhalable particulate)(8 hours):10 mg/m3 | |
| Zinc Oxide | 1314-13-2 | ACGIH | TWA(respirable fraction):2 mg/m3;STEL(respirable fraction):10 mg/m3 | |
| Zinc Oxide | 1314-13-2 | Malaysia OELs | TWA(as fume)(8 hours):5 mg/m3;TWA(as dust)(8 hours):10 mg/m3 | |
| Limestone | 1317-65-3 | Malaysia OELs | TWA (proposed)(8 hours):10 mg/m3 | |
| DUST, INERT OR NUISANCE | 13463-67-7 | Malaysia OELs | TWA (proposed)(respirable particles)(8 hours):3 mg/m3;TWA (proposed)(Inhalable particulate)(8 hours):10 mg/m3 | |
| Titanium Dioxide | 13463-67-7 | ACGIH | TWA(Respirable nanoscale particles):0.2 mg/m3;TWA(Respirable finescale particles):2.5 mg/m3 | A3: Confirmed animal carcin. |
| Titanium Dioxide | 13463-67-7 | Malaysia OELs | TWA(8 hours):10 mg/m3 | |
| CERAMIC FIBERS | 65997-17-3 | ACGIH | TWA(as fiber):0.2 fiber/cc | A2: Suspected human carcin. |
| CONTINUOUS FILAMENT GLASS FIBERS | 65997-17-3 | ACGIH | TWA(as fiber):1 fiber/cc | A4: Not class. as human carcin |
| CONTINUOUS FILAMENT GLASS FIBERS, INHALABLE FRACTION | 65997-17-3 | ACGIH | TWA(inhalable fraction):5 mg/m3 | A4: Not class. as human carcin |
| GLASS FILAMENTS | 65997-17-3 | Malaysia OELs | TWA(inhalable fraction)(8 hours):5 mg/m3;TWA(as fiber)(8 hours):1 fibers/ml | |
| GLASS WOOL FIBERS | 65997-17-3 | ACGIH | TWA(as fiber):1 fiber/cc | A3: Confirmed animal carcin. |
| Oxide glass chemicals | 65997-17-3 | Manufacturer determined | TWA(as non-fibrous, respirable)(8 hours):3 mg/m3;TWA(as non-fibrous, inhalable fraction)(8 hours):10 mg/m3 | |
| ROCK WOOL FIBERS | 65997-17-3 | ACGIH | TWA(as fiber):1 fiber/cc | A3: Confirmed animal carcin. |
| SLAG WOOL FIBERS | 65997-17-3 | ACGIH | TWA(as fiber):1 fiber/cc | A3: Confirmed animal carcin. |
| SPECIAL PURPOSE GLASS FIBERS | 65997-17-3 | ACGIH | TWA(as fiber):1 fiber/cc | A3: Confirmed animal carcin. |
| Methyl Ethyl Ketone | 78-93-3 | ACGIH | TWA:200 ppm;STEL:300 ppm | |

| | | | | |
|-----------------------------------|-----------|---------------|---|--------------------------------|
| Methyl Ethyl Ketone | 78-93-3 | Malaysia OELs | TWA(8 hours):590 mg/m ³ (200 ppm) | |
| MINERAL OILS, HIGHLY-REFINED OILS | 8012-95-1 | ACGIH | TWA(inhalable fraction):5 mg/m ³ | A4: Not class. as human carcin |
| OIL MIST, MINERAL | 8012-95-1 | Malaysia OELs | TWA(as mist)(8 hours):5 mg/m ³ | |

ACGIH : American Conference of Governmental Industrial Hygienists

CMRG : Chemical Manufacturer's Recommended Guidelines

Malaysia OELs : Malaysia. Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

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

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 | Red-Brown |
| Odor | Ketones |
| Odor threshold | <i>No Data Available</i> |
| pH | <i>Not Applicable</i> |
| Melting point/Freezing point | <i>Not Applicable</i> |
| Boiling point/Initial boiling point/Boiling range | 80 °C [<i>Details:MEK</i>] |

| | |
|--|--|
| Flash Point | -8.9 °C [<i>Test Method:</i> Closed Cup] [<i>Details:</i> MEK] |
| Evaporation rate | 2.7 [<i>Ref Std:</i> WATER=1] |
| Flammability (solid, gas) | Not Applicable |
| Flammable Limits(LEL) | 1.2 % volume |
| Flammable Limits(UEL) | 10 % volume |
| Vapor Pressure | <=12,132.3 Pa [<i>@ 25 °C</i>] |
| Vapor Density and/or Relative Vapor Density | 2.41 [<i>Ref Std:</i> AIR=1] |
| Density | 1.04 g/ml |
| Relative Density | 1.04 [<i>Ref Std:</i> WATER=1] |
| Water solubility | Slight (less than 10%) |
| Solubility- non-water | <i>No Data Available</i> |
| Partition coefficient: n-octanol/ water | <i>No Data Available</i> |
| Autoignition temperature | 404 °C [<i>Details:</i> MEK] |
| Decomposition temperature | <i>No Data Available</i> |
| Viscosity/Kinematic Viscosity | 28,700 mPa-s [<i>@ 23 °C</i>] |
| Volatile Organic Compounds | 520 g/l [<i>Details:</i> EU VOC content] |
| Percent volatile | 40 - 50 % weight |
| VOC Less H2O & Exempt Solvents | 514 g/l [<i>Test Method:</i> calculated SCAQMD rule 443.1] |
| Molecular weight | <i>No Data Available</i> |

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

Heat
Sparks and/or flames

10.5. Incompatible materials

Strong oxidizing agents
Strong acids

10.6. Hazardous decomposition products

| <u>Substance</u> | <u>Condition</u> |
|------------------|------------------|
| 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:

Contact with the skin during product use is not expected to result in significant irritation.

Eye Contact:

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

Ingestion:

May be harmful if swallowed.

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.

Reproductive/Developmental Toxicity:

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

| Name | Route | Species | Value |
|---------------------------------|----------------------------|---------|---|
| Overall product | Dermal | | No data available; calculated ATE >5,000 mg/kg |
| Overall product | Inhalation-Vapor(4 hr) | | No data available; calculated ATE >50 mg/l |
| Overall product | Ingestion | | No data available; calculated ATE >2,000 - =5,000 mg/kg |
| Methyl Ethyl Ketone | Dermal | Rabbit | LD50 > 8,050 mg/kg |
| Methyl Ethyl Ketone | Inhalation-Vapor (4 hours) | Rat | LC50 34.5 mg/l |
| Methyl Ethyl Ketone | Ingestion | Rat | LD50 2,737 mg/kg |
| Acrylonitrile-Butadiene Polymer | Dermal | Rabbit | LD50 > 15,000 mg/kg |
| Acrylonitrile-Butadiene Polymer | Ingestion | Rat | LD50 > 30,000 mg/kg |
| Glycerol Esters of Rosin Acids | Dermal | Rabbit | LD50 > 5,000 mg/kg |
| Glycerol Esters of Rosin Acids | Ingestion | Rat | LD50 > 2,000 mg/kg |
| Methyl Isobutyl Ketone | Dermal | Rabbit | LD50 > 16,000 mg/kg |

3M™ Scotch-Seal™ Industrial Sealant 800 Reddish Brown

| | | | |
|--|--------------------------------|---------------|--|
| Methyl Isobutyl Ketone | Inhalation-Vapor (4 hours) | Rat | LC50 11 mg/l |
| Methyl Isobutyl Ketone | Ingestion | Rat | LD50 3,038 mg/kg |
| Limestone | Dermal | Rat | LD50 > 2,000 mg/kg |
| Limestone | Inhalation-Dust/Mist (4 hours) | Rat | LC50 3 mg/l |
| Limestone | Ingestion | Rat | LD50 6,450 mg/kg |
| tri(Butoxyethyl) Phosphate | Dermal | Rabbit | LD50 > 5,000 mg/kg |
| tri(Butoxyethyl) Phosphate | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 6.4 mg/l |
| tri(Butoxyethyl) Phosphate | Ingestion | Rat | LD50 4,700 mg/kg |
| Oxide glass chemicals | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| Oxide glass chemicals | Ingestion | | LD50 estimated to be 2,000 - 5,000 mg/kg |
| Titanium Dioxide | Dermal | Rabbit | LD50 > 10,000 mg/kg |
| Titanium Dioxide | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 6.82 mg/l |
| Titanium Dioxide | Ingestion | Rat | LD50 > 10,000 mg/kg |
| Iron Oxide (Fe2O3) | Dermal | Not available | LD50 3,100 mg/kg |
| Iron Oxide (Fe2O3) | Ingestion | Not available | LD50 3,700 mg/kg |
| Zinc Oxide | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| Zinc Oxide | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 5.7 mg/l |
| Zinc Oxide | Ingestion | Rat | LD50 > 5,000 mg/kg |
| Salicylic Acid | Dermal | Rat | LD50 > 2,000 mg/kg |
| Salicylic Acid | Ingestion | Rat | LD50 891 mg/kg |
| Toluene | Dermal | Rat | LD50 12,000 mg/kg |
| Toluene | Inhalation-Vapor (4 hours) | Rat | LC50 30 mg/l |
| Toluene | Ingestion | Rat | LD50 5,550 mg/kg |
| N-Phenylbenzenamine, reaction product with diisobutylene | Dermal | Rat | LD50 > 2,000 mg/kg |
| N-Phenylbenzenamine, reaction product with diisobutylene | Ingestion | Rat | LD50 > 5,000 mg/kg |
| Paraffin Oils | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| Paraffin Oils | Ingestion | Rat | LD50 > 24,000 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| Name | Species | Value |
|---------------------------------|------------------------|---------------------------|
| Methyl Ethyl Ketone | Rabbit | Minimal irritation |
| Acrylonitrile-Butadiene Polymer | Professional judgement | No significant irritation |
| Glycerol Esters of Rosin Acids | Rabbit | Minimal irritation |
| Methyl Isobutyl Ketone | Rabbit | Mild irritant |
| Limestone | Rabbit | No significant irritation |
| Oxide glass chemicals | Professional judgement | No significant irritation |
| Titanium Dioxide | Rabbit | No significant irritation |
| Iron Oxide (Fe2O3) | Rabbit | No significant irritation |
| Zinc Oxide | Human and animal | No significant irritation |
| Salicylic Acid | Rabbit | No significant irritation |
| Toluene | Rabbit | Irritant |

| | | |
|--|--------|---------------|
| N-Phenylbenzenamine, reaction product with diisobutylene | Rabbit | Mild irritant |
|--|--------|---------------|

Serious Eye Damage/Irritation

| Name | Species | Value |
|--|------------------------|---------------------------|
| Methyl Ethyl Ketone | Rabbit | Severe irritant |
| Acrylonitrile-Butadiene Polymer | Professional judgement | No significant irritation |
| Glycerol Esters of Rosin Acids | Rabbit | Mild irritant |
| Methyl Isobutyl Ketone | Rabbit | Mild irritant |
| Limestone | Rabbit | No significant irritation |
| Oxide glass chemicals | Professional judgement | No significant irritation |
| Titanium Dioxide | Rabbit | No significant irritation |
| Iron Oxide (Fe ₂ O ₃) | Rabbit | No significant irritation |
| Zinc Oxide | Rabbit | Mild irritant |
| Salicylic Acid | Rabbit | Corrosive |
| Toluene | Rabbit | Moderate irritant |
| N-Phenylbenzenamine, reaction product with diisobutylene | Rabbit | Mild irritant |

Sensitization:**Skin Sensitization**

| Name | Species | Value |
|--|------------------|----------------|
| Glycerol Esters of Rosin Acids | Guinea pig | Not classified |
| Methyl Isobutyl Ketone | Guinea pig | Not classified |
| Titanium Dioxide | Human and animal | Not classified |
| Iron Oxide (Fe ₂ O ₃) | Human | Not classified |
| Zinc Oxide | Guinea pig | Not classified |
| Salicylic Acid | Mouse | Not classified |
| Toluene | Guinea pig | Not classified |
| N-Phenylbenzenamine, reaction product with diisobutylene | Guinea pig | Not classified |

Photosensitization

| Name | Species | Value |
|----------------|---------|-----------------|
| Salicylic Acid | Mouse | Not 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 |
|--------------------------------|----------|--|
| Methyl Ethyl Ketone | In Vitro | Not mutagenic |
| Glycerol Esters of Rosin Acids | In Vitro | Not mutagenic |
| Methyl Isobutyl Ketone | In Vitro | Not mutagenic |
| Oxide glass chemicals | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Titanium Dioxide | In Vitro | Not mutagenic |

| | | |
|--|----------|--|
| Titanium Dioxide | In vivo | Not mutagenic |
| Iron Oxide (Fe2O3) | In Vitro | Not mutagenic |
| Zinc Oxide | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Zinc Oxide | In vivo | Some positive data exist, but the data are not sufficient for classification |
| Salicylic Acid | In Vitro | Not mutagenic |
| Salicylic Acid | In vivo | Not mutagenic |
| Toluene | In Vitro | Not mutagenic |
| Toluene | In vivo | Not mutagenic |
| N-Phenylbenzenamine, reaction product with diisobutylene | In Vitro | Not mutagenic |

Carcinogenicity

| Name | Route | Species | Value |
|------------------------|------------|-------------------------|--|
| Methyl Ethyl Ketone | Inhalation | Human | Not carcinogenic |
| Methyl Isobutyl Ketone | Inhalation | Multiple animal species | Carcinogenic |
| Oxide glass chemicals | Inhalation | Multiple animal species | Some positive data exist, but the data are not sufficient for classification |
| Titanium Dioxide | Ingestion | Multiple animal species | Not carcinogenic |
| Titanium Dioxide | Inhalation | Rat | Carcinogenic |
| Iron Oxide (Fe2O3) | Inhalation | Human | Some positive data exist, but the data are not sufficient for classification |
| Toluene | Dermal | Mouse | Some positive data exist, but the data are not sufficient for classification |
| Toluene | Ingestion | Rat | Some positive data exist, but the data are not sufficient for classification |
| Toluene | Inhalation | Mouse | Some positive data exist, but the data are not sufficient for classification |

Reproductive Toxicity

Reproductive and/or Developmental Effects

| Name | Route | Value | Species | Test Result | Exposure Duration |
|------------------------|------------|--|-------------------------|-----------------------|------------------------------|
| Methyl Ethyl Ketone | Inhalation | Not classified for development | Rat | LOAEL 8.8 mg/l | during gestation |
| Methyl Isobutyl Ketone | Inhalation | Not classified for female reproduction | Multiple animal species | NOAEL 8.2 mg/l | 2 generation |
| Methyl Isobutyl Ketone | Ingestion | Not classified for male reproduction | Rat | NOAEL 1,000 mg/kg/day | 13 weeks |
| Methyl Isobutyl Ketone | Inhalation | Not classified for male reproduction | Multiple animal species | NOAEL 8.2 mg/l | 2 generation |
| Methyl Isobutyl Ketone | Inhalation | Not classified for development | Mouse | NOAEL 12.3 mg/l | during organogenesis |
| Limestone | Ingestion | Not classified for development | Rat | NOAEL 625 mg/kg/day | premating & during gestation |
| Zinc Oxide | Ingestion | Not classified for reproduction and/or development | Multiple animal species | NOAEL 125 mg/kg/day | premating & during gestation |
| Salicylic Acid | Ingestion | Toxic to development | Rat | NOAEL 75 mg/kg/day | during organogenesis |
| Toluene | Inhalation | Not classified for female reproduction | Human | NOAEL Not available | occupational exposure |
| Toluene | Inhalation | Not classified for male reproduction | Rat | NOAEL 2.3 mg/l | 1 generation |
| Toluene | Ingestion | Toxic to development | Rat | LOAEL 520 mg/kg/day | during gestation |

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|--|------------|--------------------------------------|-------|---------------------|------------------------|
| Toluene | Inhalation | Toxic to development | Human | NOAEL Not available | poisoning and/or abuse |
| N-Phenylbenzenamine, reaction product with diisobutylene | Ingestion | Not classified for male reproduction | Rat | NOAEL 54 mg/kg/day | 2 generation |
| N-Phenylbenzenamine, reaction product with diisobutylene | Ingestion | Not classified for development | Rat | NOAEL 18 mg/kg/day | 2 generation |
| N-Phenylbenzenamine, reaction product with diisobutylene | Ingestion | Toxic to female reproduction | Rat | NOAEL 54 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 |
|--|------------|-----------------------------------|--|-------------------------|---------------------|------------------------|
| Methyl Ethyl Ketone | Inhalation | central nervous system depression | May cause drowsiness or dizziness | official classification | NOAEL Not available | |
| Methyl Ethyl Ketone | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | |
| Methyl Ethyl Ketone | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Professional judgement | NOAEL Not available | |
| Methyl Ethyl Ketone | Ingestion | liver | Not classified | Rat | NOAEL Not available | not applicable |
| Methyl Ethyl Ketone | Ingestion | kidney and/or bladder | Not classified | Rat | LOAEL 1,080 mg/kg | not applicable |
| Methyl Isobutyl Ketone | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | LOAEL 0.1 mg/l | 2 hours |
| Methyl Isobutyl Ketone | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | |
| Methyl Isobutyl Ketone | Inhalation | vascular system | Not classified | Dog | NOAEL Not available | not available |
| Methyl Isobutyl Ketone | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Rat | LOAEL 900 mg/kg | not applicable |
| Limestone | Inhalation | respiratory system | Not classified | Rat | NOAEL 0.812 mg/l | 90 minutes |
| Toluene | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| Toluene | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | |
| Toluene | Inhalation | immune system | Not classified | Mouse | NOAEL 0.004 mg/l | 3 hours |
| Toluene | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | poisoning and/or abuse |
| N-Phenylbenzenamine, reaction product with diisobutylene | 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 |
|---------------------|------------|--|----------------|------------|---------------------|-------------------|
| Methyl Ethyl Ketone | Dermal | nervous system | Not classified | Guinea pig | NOAEL Not available | 31 weeks |
| Methyl Ethyl Ketone | Inhalation | liver kidney and/or bladder heart endocrine system gastrointestinal tract bone, teeth, nails, and/or hair hematopoietic system immune system muscles | Not classified | Rat | NOAEL 14.7 mg/l | 90 days |

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|--------------------------------|------------|---|--|-------------------------|-----------------------|------------------------|
| Methyl Ethyl Ketone | Ingestion | liver | Not classified | Rat | NOAEL Not available | 7 days |
| Methyl Ethyl Ketone | Ingestion | nervous system | Not classified | Rat | NOAEL 173 mg/kg/day | 90 days |
| Glycerol Esters of Rosin Acids | Ingestion | liver heart skin endocrine system bone, teeth, nails, and/or hair blood bone marrow hematopoietic system immune system muscles nervous system eyes kidney and/or bladder respiratory system | Not classified | Rat | NOAEL 5,000 mg/kg/day | 90 days |
| Methyl Isobutyl Ketone | Inhalation | liver | Not classified | Rat | NOAEL 0.41 mg/l | 13 weeks |
| Methyl Isobutyl Ketone | Inhalation | heart | Not classified | Multiple animal species | NOAEL 0.8 mg/l | 2 weeks |
| Methyl Isobutyl Ketone | Inhalation | kidney and/or bladder | Not classified | Multiple animal species | NOAEL 0.4 mg/l | 90 days |
| Methyl Isobutyl Ketone | Inhalation | respiratory system | Not classified | Multiple animal species | NOAEL 4.1 mg/l | 14 weeks |
| Methyl Isobutyl Ketone | Inhalation | endocrine system hematopoietic system | Not classified | Multiple animal species | NOAEL 0.41 mg/l | 90 days |
| Methyl Isobutyl Ketone | Inhalation | nervous system | Not classified | Multiple animal species | NOAEL 0.41 mg/l | 13 weeks |
| Methyl Isobutyl Ketone | Ingestion | endocrine system hematopoietic system liver kidney and/or bladder | Not classified | Rat | NOAEL 1,000 mg/kg/day | 13 weeks |
| Methyl Isobutyl Ketone | Ingestion | heart immune system muscles nervous system respiratory system | Not classified | Rat | NOAEL 1,040 mg/kg/day | 120 days |
| Limestone | Inhalation | respiratory system | Not classified | Human | NOAEL Not available | occupational exposure |
| Oxide glass chemicals | Inhalation | respiratory system | Not classified | Human | NOAEL not available | occupational exposure |
| Titanium Dioxide | Inhalation | respiratory system | Some positive data exist, but the data are not sufficient for classification | Rat | LOAEL 0.01 mg/l | 2 years |
| Titanium Dioxide | Inhalation | pulmonary fibrosis | Not classified | Human | NOAEL Not available | occupational exposure |
| Iron Oxide (Fe2O3) | Inhalation | pulmonary fibrosis pneumoconiosis | Not classified | Human | NOAEL Not available | occupational exposure |
| Zinc Oxide | Ingestion | nervous system | Not classified | Rat | NOAEL 600 mg/kg/day | 10 days |
| Zinc Oxide | Ingestion | endocrine system hematopoietic system kidney and/or bladder | Not classified | Other | NOAEL 500 mg/kg/day | 6 months |
| Salicylic Acid | Ingestion | liver | Not classified | Rat | NOAEL 500 mg/kg/day | 3 days |
| Toluene | Inhalation | auditory system eyes olfactory system | Causes damage to organs through prolonged or repeated exposure | Human | NOAEL Not available | poisoning and/or abuse |
| Toluene | Inhalation | nervous system | May cause damage to organs though prolonged or repeated exposure | Human | NOAEL Not available | poisoning and/or abuse |
| Toluene | Inhalation | respiratory system | Some positive data exist, but the | Rat | LOAEL 2.3 | 15 months |

| | | | | | | |
|--|------------|--|--|-------------------------|-----------------------|-----------------------|
| | | | data are not sufficient for classification | | mg/l | |
| Toluene | Inhalation | heart liver kidney and/or bladder | Not classified | Rat | NOAEL 11.3 mg/l | 15 weeks |
| Toluene | Inhalation | endocrine system | Not classified | Rat | NOAEL 1.1 mg/l | 4 weeks |
| Toluene | Inhalation | immune system | Not classified | Mouse | NOAEL Not available | 20 days |
| Toluene | Inhalation | bone, teeth, nails, and/or hair | Not classified | Mouse | NOAEL 1.1 mg/l | 8 weeks |
| Toluene | Inhalation | hematopoietic system vascular system | Not classified | Human | NOAEL Not available | occupational exposure |
| Toluene | Inhalation | gastrointestinal tract | Not classified | Multiple animal species | NOAEL 11.3 mg/l | 15 weeks |
| Toluene | Ingestion | nervous system | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 625 mg/kg/day | 13 weeks |
| Toluene | Ingestion | heart | Not classified | Rat | NOAEL 2,500 mg/kg/day | 13 weeks |
| Toluene | Ingestion | liver kidney and/or bladder | Not classified | Multiple animal species | NOAEL 2,500 mg/kg/day | 13 weeks |
| Toluene | Ingestion | hematopoietic system | Not classified | Mouse | NOAEL 600 mg/kg/day | 14 days |
| Toluene | Ingestion | endocrine system | Not classified | Mouse | NOAEL 105 mg/kg/day | 28 days |
| Toluene | Ingestion | immune system | Not classified | Mouse | NOAEL 105 mg/kg/day | 4 weeks |
| N-Phenylbenzenamine, reaction product with diisobutylene | Ingestion | nervous system | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 54 mg/kg/day | 98 days |
| N-Phenylbenzenamine, reaction product with diisobutylene | Ingestion | endocrine system liver kidney and/or bladder heart gastrointestinal tract bone, teeth, nails, and/or hair hematopoietic system immune system muscles eyes respiratory system | Not classified | Rat | NOAEL 225 mg/kg/day | 28 days |

Aspiration Hazard

| Name | Value |
|------------------------|--|
| Methyl Isobutyl Ketone | Some positive data exist, but the data are not sufficient for classification |
| Toluene | 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 |
|---------------------------------|------------|------------------|---|------------|--------------------------------|--------------|
| Methyl Ethyl Ketone | 78-93-3 | Fathead Minnow | Experimental | 96 hours | LC50 | 2,993 mg/l |
| Methyl Ethyl Ketone | 78-93-3 | Green algae | Experimental | 96 hours | ErC50 | 2,029 mg/l |
| Methyl Ethyl Ketone | 78-93-3 | Water flea | Experimental | 48 hours | EC50 | 308 mg/l |
| Methyl Ethyl Ketone | 78-93-3 | Green algae | Experimental | 96 hours | ErC10 | 1,289 mg/l |
| Methyl Ethyl Ketone | 78-93-3 | Water flea | Experimental | 21 days | NOEC | 100 mg/l |
| Methyl Ethyl Ketone | 78-93-3 | Bacteria | Experimental | 16 hours | LOEC | 1,150 mg/l |
| Acrylonitrile-Butadiene Polymer | 9003-18-3 | N/A | Data not available or insufficient for classification | N/A | N/A | N/A |
| Glycerol Esters of Rosin Acids | 8050-31-5 | Green algae | Estimated | 72 hours | No tox obs at lmt of water sol | >100 mg/l |
| Glycerol Esters of Rosin Acids | 8050-31-5 | Rainbow Trout | Estimated | 96 hours | No tox obs at lmt of water sol | >100 mg/l |
| Glycerol Esters of Rosin Acids | 8050-31-5 | Water flea | Experimental | 48 hours | No tox obs at lmt of water sol | >100 mg/l |
| Glycerol Esters of Rosin Acids | 8050-31-5 | Green algae | Estimated | 72 hours | No tox obs at lmt of water sol | >100 mg/l |
| Limestone | 1317-65-3 | Green algae | Estimated | 72 hours | EC50 | >100 mg/l |
| Limestone | 1317-65-3 | Rainbow Trout | Estimated | 96 hours | LC50 | >100 mg/l |
| Limestone | 1317-65-3 | Water flea | Estimated | 48 hours | EC50 | >100 mg/l |
| Limestone | 1317-65-3 | Green algae | Estimated | 72 hours | EC10 | >100 mg/l |
| Methyl Isobutyl Ketone | 108-10-1 | Green algae | Experimental | 96 hours | EC50 | 400 mg/l |
| Methyl Isobutyl Ketone | 108-10-1 | Water flea | Experimental | 48 hours | EC50 | >200 mg/l |
| Methyl Isobutyl Ketone | 108-10-1 | Zebra Fish | Experimental | 96 hours | LC50 | >179 mg/l |
| Methyl Isobutyl Ketone | 108-10-1 | Fathead Minnow | Experimental | 32 days | NOEC | 56.2 mg/l |
| Methyl Isobutyl Ketone | 108-10-1 | Water flea | Experimental | 21 days | NOEC | 78 mg/l |
| Methyl Isobutyl Ketone | 108-10-1 | Activated sludge | Experimental | 30 minutes | EC50 | >1,000 |
| Titanium Dioxide | 13463-67-7 | Activated sludge | Experimental | 3 hours | NOEC | >=1,000 mg/l |
| Titanium Dioxide | 13463-67-7 | Diatom | Experimental | 72 hours | EC50 | >10,000 mg/l |
| Titanium Dioxide | 13463-67-7 | Fathead Minnow | Experimental | 96 hours | LC50 | >100 mg/l |
| Titanium Dioxide | 13463-67-7 | Water flea | Experimental | 48 hours | EC50 | >100 mg/l |
| Titanium Dioxide | 13463-67-7 | Diatom | Experimental | 72 hours | NOEC | 5,600 mg/l |
| Iron Oxide (Fe2O3) | 1309-37-1 | Green algae | Experimental | 72 hours | No tox obs at lmt of water sol | >100 mg/l |
| Iron Oxide (Fe2O3) | 1309-37-1 | Water flea | Experimental | 48 hours | No tox obs at lmt of water sol | >100 mg/l |
| Iron Oxide (Fe2O3) | 1309-37-1 | Zebra Fish | Experimental | 96 hours | No tox obs at lmt of water sol | >100 mg/l |
| Iron Oxide (Fe2O3) | 1309-37-1 | Green algae | Experimental | 72 hours | No tox obs at lmt of water sol | >100 mg/l |
| Iron Oxide (Fe2O3) | 1309-37-1 | Water flea | Experimental | 21 days | No tox obs at lmt of water sol | >100 mg/l |
| Iron Oxide | 1309-37-1 | Activated sludge | Experimental | 3 hours | EC50 | >10,000 mg/l |

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|--|------------|------------------|---|----------|-------|------------------------------|
| (Fe2O3) | | | | | | |
| Oxide glass chemicals | 65997-17-3 | Green algae | Experimental | 72 hours | EC50 | >1,000 mg/l |
| Oxide glass chemicals | 65997-17-3 | Water flea | Experimental | 72 hours | EC50 | >1,000 mg/l |
| Oxide glass chemicals | 65997-17-3 | Zebra Fish | Experimental | 96 hours | LC50 | >1,000 mg/l |
| Oxide glass chemicals | 65997-17-3 | Green algae | Experimental | 72 hours | NOEC | >=1,000 mg/l |
| tri(Butoxyethyl) Phosphate | 78-51-3 | Green algae | Experimental | 72 hours | EC50 | 61 mg/l |
| tri(Butoxyethyl) Phosphate | 78-51-3 | Medaka | Experimental | 96 hours | LC50 | 3.34 mg/l |
| tri(Butoxyethyl) Phosphate | 78-51-3 | Water flea | Experimental | 48 hours | EC50 | 33 mg/l |
| tri(Butoxyethyl) Phosphate | 78-51-3 | Green algae | Experimental | 72 hours | ErC10 | 28 mg/l |
| tri(Butoxyethyl) Phosphate | 78-51-3 | Medaka | Experimental | 14 days | NOEC | 0.25 mg/l |
| tri(Butoxyethyl) Phosphate | 78-51-3 | Activated sludge | Experimental | 3 hours | EC50 | >1,000 mg/l |
| tri(Butoxyethyl) Phosphate | 78-51-3 | Redworm | Experimental | 14 days | LC50 | 544 mg/kg (Dry Weight) |
| tri(Butoxyethyl) Phosphate | 78-51-3 | Turnip | Experimental | 21 days | ErC50 | 46.8 mg/kg (Dry Weight) |
| Salicylic Acid | 69-72-7 | Green algae | Experimental | 72 hours | EC50 | >100 mg/l |
| Salicylic Acid | 69-72-7 | Medaka | Experimental | 96 hours | LC50 | >100 mg/l |
| Salicylic Acid | 69-72-7 | Water flea | Experimental | 48 hours | EC50 | 870 mg/l |
| Salicylic Acid | 69-72-7 | Water flea | Experimental | 21 days | NOEC | 10 mg/l |
| Salicylic Acid | 69-72-7 | Activated sludge | Experimental | 3 hours | EC50 | >3,200 |
| Salicylic Acid | 69-72-7 | Bacteria | Experimental | 18 hours | EC10 | 465 |
| Zinc Oxide | 1314-13-2 | Activated sludge | Estimated | 3 hours | EC50 | 6.5 mg/l |
| Zinc Oxide | 1314-13-2 | Green algae | Estimated | 72 hours | EC50 | 0.052 mg/l |
| Zinc Oxide | 1314-13-2 | Rainbow Trout | Estimated | 96 hours | LC50 | 0.21 mg/l |
| Zinc Oxide | 1314-13-2 | Water flea | Estimated | 48 hours | EC50 | 0.07 mg/l |
| Zinc Oxide | 1314-13-2 | Green algae | Estimated | 72 hours | NOEC | 0.006 mg/l |
| Zinc Oxide | 1314-13-2 | Water flea | Estimated | 7 days | NOEC | 0.02 mg/l |
| Toluene | 108-88-3 | Coho Salmon | Experimental | 96 hours | LC50 | 5.5 mg/l |
| Toluene | 108-88-3 | Grass Shrimp | Experimental | 96 hours | LC50 | 9.5 mg/l |
| Toluene | 108-88-3 | Green algae | Experimental | 72 hours | EC50 | 12.5 mg/l |
| Toluene | 108-88-3 | Leopard frog | Experimental | 9 days | LC50 | 0.39 mg/l |
| Toluene | 108-88-3 | Pink Salmon | Experimental | 96 hours | LC50 | 6.41 mg/l |
| Toluene | 108-88-3 | Water flea | Experimental | 48 hours | EC50 | 3.78 mg/l |
| Toluene | 108-88-3 | Coho Salmon | Experimental | 40 days | NOEC | 1.39 mg/l |
| Toluene | 108-88-3 | Diatom | Experimental | 72 hours | NOEC | 10 mg/l |
| Toluene | 108-88-3 | Water flea | Experimental | 7 days | NOEC | 0.74 mg/l |
| Toluene | 108-88-3 | Activated sludge | Experimental | 12 hours | IC50 | 292 mg/l |
| Toluene | 108-88-3 | Bacteria | Experimental | 16 hours | NOEC | 29 mg/l |
| Toluene | 108-88-3 | Bacteria | Experimental | 24 hours | EC50 | 84 mg/l |
| Toluene | 108-88-3 | Redworm | Experimental | 28 days | LC50 | >150 mg per kg of bodyweight |
| Toluene | 108-88-3 | Soil microbes | Experimental | 28 days | NOEC | <26 mg/kg (Dry Weight) |
| N-Phenylbenzamine, reaction product with diisobutylene | 68411-46-1 | Water flea | Experimental | 24 hours | EC50 | 0.82 mg/l |
| N-Phenylbenzamine, reaction product with diisobutylene | 68411-46-1 | Zebra Fish | Experimental | 96 hours | LC50 | >47.05 mg/l |
| Paraffin Oils | 8012-95-1 | N/A | Data not available or insufficient for classification | N/A | N/A | N/A |

12.2. Persistence and degradability

| Material | CAS No. | Test Type | Duration | Study Type | Test Result | Protocol |
|--|------------|------------------------------------|----------|-------------------------------|------------------------------------|--------------------------------|
| Methyl Ethyl Ketone | 78-93-3 | Experimental Biodegradation | 28 days | Biological Oxygen Demand | 98 %BOD/ThOD | OECD 301D - Closed Bottle Test |
| Acrylonitrile-Butadiene Polymer | 9003-18-3 | Data not available or insufficient | N/A | N/A | N/A | N/A |
| Glycerol Esters of Rosin Acids | 8050-31-5 | Experimental Biodegradation | 28 days | Carbon dioxide evolution | 0 %CO2 evolution/THCO2 evolution | OECD 301B - Mod. Sturm or CO2 |
| Limestone | 1317-65-3 | Data not available or insufficient | N/A | N/A | N/A | N/A |
| Methyl Isobutyl Ketone | 108-10-1 | Experimental Biodegradation | 28 days | Biological Oxygen Demand | 83 %BOD/ThOD | OECD 301F - Manometric Respiro |
| Methyl Isobutyl Ketone | 108-10-1 | Experimental Photolysis | | Photolytic half-life (in air) | 2.3 days (t 1/2) | |
| Titanium Dioxide | 13463-67-7 | Data not available or insufficient | N/A | N/A | N/A | N/A |
| Iron Oxide (Fe2O3) | 1309-37-1 | Data not available or insufficient | N/A | N/A | N/A | N/A |
| Oxide glass chemicals | 65997-17-3 | Data not available or insufficient | N/A | N/A | N/A | N/A |
| tri(Butoxyethyl) Phosphate | 78-51-3 | Experimental Biodegradation | 28 days | Carbon dioxide evolution | 87 %CO2 evolution/THCO2 evolution | OECD 301B - Mod. Sturm or CO2 |
| Salicylic Acid | 69-72-7 | Experimental Biodegradation | 14 days | Biological Oxygen Demand | 88.1 %BOD/ThOD | OECD 301C - MITI (I) |
| Zinc Oxide | 1314-13-2 | Data not available or insufficient | N/A | N/A | N/A | N/A |
| Toluene | 108-88-3 | Experimental Biodegradation | 20 days | Biological Oxygen Demand | 80 %BOD/ThOD | APHA Std Meth Water/Wastewater |
| Toluene | 108-88-3 | Experimental Photolysis | | Photolytic half-life (in air) | 5.2 days (t 1/2) | |
| N-Phenylbenzenamine, reaction product with diisobutylene | 68411-46-1 | Experimental Biodegradation | 28 days | Carbon dioxide evolution | <=1 %CO2 evolution/THCO2 evolution | OECD 301B - Mod. Sturm or CO2 |
| Paraffin Oils | 8012-95-1 | Analogous Compound Biodegradation | 28 days | Carbon dioxide evolution | 10 %CO2 evolution/THCO2 evolution | OECD 301B - Mod. Sturm or CO2 |

12.3. Bioaccumulative potential

| Material | CAS No. | Test Type | Duration | Study Type | Test Result | Protocol |
|---------------------------------|------------|---|----------|--------------------------------|-------------|------------------------------|
| Methyl Ethyl Ketone | 78-93-3 | Experimental Bioconcentration | | Log of Octanol/H2O part. coeff | 0.3 | OECD 117 log Kow HPLC method |
| Acrylonitrile-Butadiene Polymer | 9003-18-3 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Glycerol Esters of Rosin Acids | 8050-31-5 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Limestone | 1317-65-3 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Methyl Isobutyl Ketone | 108-10-1 | Experimental Bioconcentration | | Log of Octanol/H2O part. coeff | 1.9 | OECD 117 log Kow HPLC method |
| Titanium Dioxide | 13463-67-7 | Experimental BCF - Fish | 42 days | Bioaccumulation Factor | 9.6 | |
| Iron Oxide (Fe2O3) | 1309-37-1 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |

| | | | | | | |
|--|------------|---|----------|--------------------------------|------|--------------------------|
| Oxide glass chemicals | 65997-17-3 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| tri(Butoxyethyl) Phosphate | 78-51-3 | Experimental BCF - Fish | | Bioaccumulation Factor | <5.8 | similar to OECD 305 |
| tri(Butoxyethyl) Phosphate | 78-51-3 | Experimental Bioconcentration | | Log of Octanol/H2O part. coeff | 3.75 | |
| Salicylic Acid | 69-72-7 | Experimental Bioconcentration | | Log of Octanol/H2O part. coeff | 2.26 | |
| Zinc Oxide | 1314-13-2 | Experimental BCF - Fish | 56 days | Bioaccumulation Factor | ≤217 | OECD305-Bioconcentration |
| Toluene | 108-88-3 | Experimental BCF - Other | 72 hours | Bioaccumulation Factor | 90 | |
| Toluene | 108-88-3 | Experimental Bioconcentration | | Log of Octanol/H2O part. coeff | 2.73 | |
| N-Phenylbenzenamine, reaction product with diisobutylene | 68411-46-1 | Analogous Compound BCF - Fish | 42 days | Bioaccumulation Factor | 1730 | |
| Paraffin Oils | 8012-95-1 | Modeled Bioconcentration | | Bioaccumulation Factor | 1700 | Catalogic™ |

12.4. Mobility in soil

Please contact manufacturer for more details

12.5 Other adverse effects

No information available

SECTION 13: Disposal considerations

13.1. Disposal methods

According to the Environmental Quality (Scheduled Wastes) Regulations 2005, scheduled waste has to be sent to a prescribed premise for recycling, treatment or disposal. Please approach Kualiti Alam for proper schedule waste classification and disposal.

SECTION 14: Transport Information

Marine Transport (IMDG)

UN Number:UN1866

Proper Shipping Name:RESIN SOLUTION

Technical Name:None assigned.

Hazard Class/Division:3

Subsidiary Risk:None assigned.

Packing Group:II

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:II

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. 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.

SECTION 16: Other information

DISCLAIMER: The information in this Safety Data Sheet (SDS) 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 SDS or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own evaluation 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 Malaysia, you are responsible for all applicable regulatory requirements, including, but not limited to, product registrations/notifications, substance volume tracking, and potential substance registration/notification.

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