# Safety Data Sheet



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

## SECTION 1: Identification

**1.1. Product identifier**
3M™ Neoprene High Performance Rubber and Gasket Adhesive 1300

**1.2. Recommended use and restrictions on use**

**Recommended use**
Adhesive, Industrial use

**1.3. Supplier's details**

| | |
|---|---|
| **ADDRESS:** | 3M Philippines, 10th and 11th Floor, The Finance Center, 26th Street Corner 9th Avenue Bonifacio Global City, Taguig City, 1634 Philippines |
| **Telephone:** | +632 827 11680 |
| **E Mail:** | mcvillalva@mmm.com |
| **Website:** | www.3m.com/ph |

**1.4. Emergency telephone number**
+632 827 11680

## SECTION 2: Hazard identification

**2.1. Classification of the substance or mixture**
Flammable Liquid: Category 2.
Skin Corrosion/Irritation: Category 2.
Serious Eye Damage/Irritation: Category 2A.
Reproductive Toxicity: Category 1B.
Specific Target Organ Toxicity (repeated exposure): Category 1.
Specific Target Organ Toxicity (single exposure): Category 3.
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. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H360 | May damage fertility or the unborn child. |
| H336 | May cause drowsiness or dizziness. |
| H372 | Causes damage to organs through prolonged or repeated exposure: nervous system \| sensory organs. |
| 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. |
| P260 | Do not breathe dust/fume/gas/mist/vapors/spray. |
| P273 | Avoid release to the environment. |
| P280F | Wear respiratory protection. |

**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**

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

## SECTION 3: Composition/information on ingredients

| Ingredient | C.A.S. No. | % by Wt |
|---|---|---|
| Petroleum Distallates | 64741-84-0 | 20 - 35 |
| Methyl Ethyl Ketone | 78-93-3 | 20 - 30 |
| Magnesium Resinate | 68037-42-3 | < 25 |
| Hexane | 110-54-3 | 5 - 20 |
| Polychloroprene | 9010-98-4 | 10 - 20 |
| P-TERT-BUTYLPHENOL-FORMALDEHYDE RESIN | 25085-50-1 | 7 - 15 |

| | | |
|---|---|---|
| Heptane | 142-82-5 | < 10 |
| Toluene | 108-88-3 | < 10 |
| Magnesium Oxide | 1309-48-4 | 3 - 7 |
| 2-Methylpentane | 107-83-5 | < 5 |
| 3-Methylpentane | 96-14-0 | < 5 |
| Cyclohexane | 110-82-7 | < 5 |
| Acetone | 67-64-1 | < 1 |
| Ethylbenzene | 100-41-4 | < 1 |
| Rosin | 8050-09-7 | < 1 |
| Styrenated Phenol | 61788-44-1 | < 1 |
| Xylene | 1330-20-7 | < 1 |
| Zinc Oxide | 1314-13-2 | < 1 |
| p-Tert-Butylphenol | 98-54-4 | < 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**

Allergic skin reaction (redness, swelling, blistering, and itching). Central nervous system depression (headache, dizziness, drowsiness, incoordination, nausea, slurred speech, giddiness, and unconsciousness). Target organ effects following prolonged or repeated exposure. See Section 11 for additional details.

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

## SECTION 5: Fire-fighting measures

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

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

**Hazardous Decomposition or By-Products**

| Substance | Condition |
|---|---|
| Aldehydes | During Combustion |
| Hydrocarbons | During Combustion |
| Carbon monoxide | During Combustion |
| Carbon dioxide | During Combustion |
| Hydrogen Chloride | During Combustion |
| Irritant Vapors or Gases | During Combustion |

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

## SECTION 6: Accidental release measures

**6.1. Personal precautions, protective equipment and emergency procedures**
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. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. Use personal protective equipment (gloves, respirators, etc.) as required. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapor accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer.

**7.2. Conditions for safe storage including any incompatibilities**
Store in a well-ventilated place. Keep 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 |
|---|---|---|---|---|
| Ethylbenzene | 100-41-4 | ACGIH | TWA:20 ppm | A3: Confirmed animal carcin., Ototoxicant |
| Ethylbenzene | 100-41-4 | Philippines OELs | CEIL:435 mg/m3(100 ppm) | |
| 2-Methylpentane | 107-83-5 | ACGIH | TWA:500 ppm;STEL:1000 ppm | |
| Toluene | 108-88-3 | ACGIH | TWA:20 ppm | A4: Not class. as human carcin, Ototoxicant |
| Toluene | 108-88-3 | Philippines OELs | TWA(8 hours):375 mg/m3(100 ppm) | |
| Hexane | 110-54-3 | ACGIH | TWA:50 ppm | Danger of cutaneous absorption |
| Hexane | 110-54-3 | Philippines OELs | TWA(8 hours):1800 mg/m3(500 ppm) | |
| Cyclohexane | 110-82-7 | ACGIH | TWA:100 ppm | |
| Cyclohexane | 110-82-7 | Philippines OELs | TWA(8 hours):1050 mg/m3(300 ppm) | |
| Magnesium Oxide | 1309-48-4 | ACGIH | TWA(inhalable fraction):10 mg/m3 | A4: Not class. as human carcin |
| Magnesium Oxide | 1309-48-4 | Philippines OELs | TWA(as fume)(8 hours):15 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 | Philippines OELs | TWA(as fume)(8 hours):1 mg/m3 | |
| Xylene | 1330-20-7 | ACGIH | TWA:20 ppm;STEL:150 ppm | A4: Not class. as human carcin |
| Xylene | 1330-20-7 | Philippines OELs | TWA(8 hours):0.1 mg/m3;Limit value not established: | |
| Heptane | 142-82-5 | ACGIH | TWA:400 ppm;STEL:500 ppm | |
| Heptane | 142-82-5 | Philippines OELs | TWA(8 hours):2000 mg/m3(500 ppm) | |
| Naphtha | 64741-84-0 | Philippines OELs | TWA(8 hours):400 mg/m3(100 ppm) | |
| Acetone | 67-64-1 | ACGIH | TWA:250 ppm;STEL:500 ppm | A4: Not class. as human carcin |
| Acetone | 67-64-1 | Philippines OELs | TWA(8 hours):2400 mg/m3(1000 ppm) | |
| Methyl Ethyl Ketone | 78-93-3 | ACGIH | TWA:200 ppm;STEL:300 ppm | |
| Methyl Ethyl Ketone | 78-93-3 | Philippines OELs | TWA(8 hours):590 mg/m3(200 ppm);Limit value not established: | |
| Rosin | 8050-09-7 | ACGIH | TWA(as Resin, inhalable fraction):0.001 mg/m3 | Dermal/Respiratory Sensitizer |
| 3-Methylpentane | 96-14-0 | ACGIH | TWA:500 ppm;STEL:1000 ppm | |

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
Philippines OELs : Philippines. Threshold Limit Values for Airborne Contaminants
TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit
CEIL: Ceiling

**8.2. Exposure controls**

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

**8.2.2. Personal protective equipment (PPE)**

**Eye/face protection**

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Safety Glasses with side shields
Indirect Vented Goggles

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

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

**Respiratory protection**

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates
Organic vapor respirators may have short service life.

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** | Yellow |
| **Odor** | Solvent |
| **Odor threshold** | *No Data Available* |
| **pH** | *Not Applicable* |
| **Melting point/Freezing point** | *No Data Available* |
| **Boiling point/Initial boiling point/Boiling range** | >=80 ºC |
| **Flash Point** | -20 ºC [*Test Method:*Closed Cup] [*Details:*Petroleum Distillates] |
| **Evaporation rate** | *No Data Available* |
| **Flammability (solid, gas)** | Not Applicable |
| **Flammable Limits(LEL)** | 1 % volume |

| | |
|---|---|
| **Flammable Limits(UEL)** | 10 % volume |
| **Vapor Pressure** | <=12,132.3 Pa [@ 25 ºC ] |
| **Vapor Density and/or Relative Vapor Density** | >=2.41 [*Ref Std:*AIR=1] |
| **Density** | 0.88 g/ml |
| **Relative Density** | 0.88 [*Ref Std:*WATER=1] |
| **Water solubility** | Nil |
| **Solubility- non-water** | *No Data Available* |
| **Partition coefficient: n-octanol/ water** | *No Data Available* |
| **Autoignition temperature** | *No Data Available* |
| **Decomposition temperature** | *No Data Available* |
| **Viscosity/Kinematic Viscosity** | 1,500 - 4,000 mPa-s [@ 27 ºC ] |
| **Volatile Organic Compounds** | <=615 g/l [*Details:*EU VOC content] |
| **Percent volatile** | *No Data Available* |
| **VOC Less H2O & Exempt Solvents** | <=610 g/l [*Test Method:*calculated SCAQMD rule 443.1] |
| **Molecular weight** | *No Data Available* |
| **Solids Content** | 30 - 50 % |

## 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

**10.6. Hazardous decomposition products**

| **Substance** | **Condition** |
|---|---|
| None known. | |

Refer to section 5.2 for hazardous decomposition products during combustion.

## SECTION 11: Toxicological information

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

**11.1. Information on Toxicological effects**

**Signs and Symptoms of Exposure**

**Based on test data and/or information on the components, this material may produce the following health effects:**

**Inhalation:**
Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May cause additional health effects (see below).

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

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

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

May cause additional health effects (see below).

**Additional Health Effects:**

**Single exposure may cause target organ effects:**
Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

**Prolonged or repeated exposure may cause target organ effects:**
Ocular Effects: Signs/symptoms may include blurred or significantly impaired vision.

Auditory Effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears.

Peripheral Neuropathy: Signs/symptoms may include tingling or numbness of the extremities, incoordination, weakness of the hands and feet, tremors and muscle atrophy.

Olfactory Effects: Signs/symptoms may include decreased ability to detect odors and/or complete loss of smell.

Neurological Effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and/or changes in blood pressure and heart rate.

**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 >5,000 mg/kg |

| | | | |
|---|---|---|---|
| Petroleum Distallates | Dermal | Rat | LD50 > 2,800 mg/kg |
| Petroleum Distallates | Inhalation-Vapor (4 hours) | Rat | LC50 > 25.2 mg/l |
| Petroleum Distallates | Ingestion | Rat | LD50 > 5,840 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 |
| Hexane | Dermal | Rabbit | LD50 > 2,000 mg/kg |
| Hexane | Inhalation-Vapor (4 hours) | Rat | LC50 170 mg/l |
| Hexane | Ingestion | Rat | LD50 > 28,700 mg/kg |
| Magnesium Resinate | Dermal | | LD50 estimated to be 2,000 - 5,000 mg/kg |
| Magnesium Resinate | Ingestion | | LD50 estimated to be 2,000 - 5,000 mg/kg |
| Polychloroprene | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| Polychloroprene | Ingestion | Rat | LD50 > 20,000 mg/kg |
| P-TERT-BUTYLPHENOL-FORMALDEHYDE RESIN | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| P-TERT-BUTYLPHENOL-FORMALDEHYDE RESIN | Ingestion | Rat | LD50 5,660 mg/kg |
| Heptane | Dermal | Rabbit | LD50 3,000 mg/kg |
| Heptane | Inhalation-Vapor (4 hours) | Rat | LC50 103 mg/l |
| Heptane | Ingestion | Rat | LD50 > 15,000 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 |
| 2-Methylpentane | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| 2-Methylpentane | Inhalation-Vapor | | LC50 estimated to be > 50 mg/l |
| 2-Methylpentane | Ingestion | | LD50 estimated to be > 5,000 mg/kg |
| 3-Methylpentane | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| 3-Methylpentane | Inhalation-Vapor | | LC50 estimated to be > 50 mg/l |
| 3-Methylpentane | Ingestion | | LD50 estimated to be > 5,000 mg/kg |
| Magnesium Oxide | Dermal | Professional judgement | LD50 estimated to be 2,000 - 5,000 mg/kg |
| Magnesium Oxide | Ingestion | Rat | LD50 3,870 mg/kg |
| Cyclohexane | Dermal | Rat | LD50 > 2,000 mg/kg |
| Cyclohexane | Inhalation-Vapor (4 hours) | Rat | LC50 > 32.9 mg/l |
| Cyclohexane | Ingestion | Rat | LD50 6,200 mg/kg |
| Acetone | Dermal | Rabbit | LD50 > 15,688 mg/kg |
| Acetone | Inhalation-Vapor (4 hours) | Rat | LC50 76 mg/l |
| Acetone | Ingestion | Rat | LD50 5,800 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 |
| Rosin | Dermal | Rabbit | LD50 > 2,500 mg/kg |
| Rosin | Ingestion | Rat | LD50 7,600 mg/kg |
| Ethylbenzene | Dermal | Rabbit | LD50 15,433 mg/kg |
| Ethylbenzene | Inhalation-Vapor (4 | Rat | LC50 17.4 mg/l |

| | | | |
|---|---|---|---|
| | hours) | | |
| Ethylbenzene | Ingestion | Rat | LD50 4,769 mg/kg |
| Xylene | Dermal | Rabbit | LD50 > 4,200 mg/kg |
| Xylene | Inhalation-Vapor (4 hours) | Rat | LC50 29 mg/l |
| Xylene | Ingestion | Rat | LD50 3,523 mg/kg |
| Styrenated Phenol | Dermal | Rat | LD50 > 2,000 mg/kg |
| Styrenated Phenol | Ingestion | Rat | LD50 > 2,000 mg/kg |
| p-Tert-Butylphenol | Dermal | Rabbit | LD50 2,318 mg/kg |
| p-Tert-Butylphenol | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 5.6 mg/l |
| p-Tert-Butylphenol | Ingestion | Rat | LD50 4,000 mg/kg |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name | Species | Value |
|---|---|---|
| Petroleum Distallates | Rabbit | Irritant |
| Methyl Ethyl Ketone | Rabbit | Minimal irritation |
| Hexane | Human and animal | Mild irritant |
| Polychloroprene | Human | No significant irritation |
| Heptane | Human | Mild irritant |
| Toluene | Rabbit | Irritant |
| 2-Methylpentane | Professional judgement | Mild irritant |
| 3-Methylpentane | Professional judgement | Mild irritant |
| Magnesium Oxide | Professional judgement | No significant irritation |
| Cyclohexane | Rabbit | Mild irritant |
| Acetone | Mouse | Minimal irritation |
| Zinc Oxide | Human and animal | No significant irritation |
| Rosin | Rabbit | No significant irritation |
| Ethylbenzene | Rabbit | Mild irritant |
| Xylene | Rabbit | Mild irritant |
| Styrenated Phenol | Rabbit | No significant irritation |
| p-Tert-Butylphenol | Rabbit | Irritant |

**Serious Eye Damage/Irritation**

| Name | Species | Value |
|---|---|---|
| Petroleum Distallates | Rabbit | Mild irritant |
| Methyl Ethyl Ketone | Rabbit | Severe irritant |
| Hexane | Rabbit | Mild irritant |
| Polychloroprene | Professional judgement | No significant irritation |
| Heptane | Professional judgement | Moderate irritant |
| Toluene | Rabbit | Moderate irritant |

| | | |
|---|---|---|
| 2-Methylpentane | Professional judgement | Moderate irritant |
| 3-Methylpentane | Professional judgement | Moderate irritant |
| Cyclohexane | Rabbit | Mild irritant |
| Acetone | Rabbit | Severe irritant |
| Zinc Oxide | Rabbit | Mild irritant |
| Rosin | Rabbit | Mild irritant |
| Ethylbenzene | Rabbit | Moderate irritant |
| Xylene | Rabbit | Mild irritant |
| Styrenated Phenol | Rabbit | Mild irritant |
| p-Tert-Butylphenol | Rabbit | Corrosive |

**Sensitization:**

**Skin Sensitization**

| Name | Species | Value |
|---|---|---|
| Petroleum Distallates | Guinea pig | Not classified |
| Hexane | Human | Not classified |
| P-TERT-BUTYLPHENOL-FORMALDEHYDE RESIN | Human | Some positive data exist, but the data are not sufficient for classification |
| Toluene | Guinea pig | Not classified |
| Zinc Oxide | Guinea pig | Not classified |
| Rosin | Guinea pig | Sensitizing |
| Ethylbenzene | Human | Not classified |
| Styrenated Phenol | Mouse | Sensitizing |
| p-Tert-Butylphenol | Human and animal | Not classified |

**Respiratory Sensitization**

| Name | Species | Value |
|---|---|---|
| Rosin | Human | Not classified |

**Germ Cell Mutagenicity**

| Name | Route | Value |
|---|---|---|
| Methyl Ethyl Ketone | In Vitro | Not mutagenic |
| Hexane | In Vitro | Not mutagenic |
| Hexane | In vivo | Not mutagenic |
| Heptane | In Vitro | Not mutagenic |
| Toluene | In Vitro | Not mutagenic |
| Toluene | In vivo | Not mutagenic |
| Magnesium Oxide | In Vitro | Not mutagenic |
| Cyclohexane | In Vitro | Not mutagenic |
| Cyclohexane | In vivo | Some positive data exist, but the data are not sufficient for classification |
| Acetone | In vivo | Not mutagenic |
| Acetone | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| 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 |

| | | |
|---|---|---|
| Ethylbenzene | In vivo | Not mutagenic |
| Ethylbenzene | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Xylene | In Vitro | Not mutagenic |
| Xylene | In vivo | Not mutagenic |
| p-Tert-Butylphenol | In Vitro | Not mutagenic |

## Carcinogenicity

| Name | Route | Species | Value |
|---|---|---|---|
| Methyl Ethyl Ketone | Inhalation | Human | Not carcinogenic |
| Hexane | Dermal | Mouse | Not carcinogenic |
| Hexane | Inhalation | Mouse | 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 |
| Magnesium Oxide | Not Specified | Human and animal | Some positive data exist, but the data are not sufficient for classification |
| Acetone | Not Specified | Multiple animal species | Not carcinogenic |
| Ethylbenzene | Inhalation | Multiple animal species | Carcinogenic |
| Xylene | Dermal | Rat | Not carcinogenic |
| Xylene | Ingestion | Multiple animal species | Not carcinogenic |
| Xylene | Inhalation | Human | Some positive data exist, but the data are not sufficient for classification |
| p-Tert-Butylphenol | Ingestion | Multiple animal species | 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 |
|---|---|---|---|---|---|
| Petroleum Distallates | Ingestion | Toxic to male reproduction | similar compoun ds | NOAEL not available | not available |
| Petroleum Distallates | Inhalation | Toxic to male reproduction | similar compoun ds | NOAEL not available | not available |
| Methyl Ethyl Ketone | Inhalation | Not classified for development | Rat | LOAEL 8.8 mg/l | during gestation |
| Hexane | Ingestion | Not classified for development | Mouse | NOAEL 2,200 mg/kg/day | during organogenesis |
| Hexane | Inhalation | Not classified for development | Rat | NOAEL 0.7 mg/l | during gestation |
| Hexane | Ingestion | Toxic to male reproduction | Rat | NOAEL 1,140 mg/kg/day | 90 days |
| Hexane | Inhalation | Toxic to male reproduction | Rat | LOAEL 3.52 mg/l | 28 days |
| 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 | during |

| | | | | | |
|---|---|---|---|---|---|
| | | | | mg/kg/day | gestation |
| Toluene | Inhalation | Toxic to development | Human | NOAEL Not available | poisoning and/or abuse |
| Cyclohexane | Inhalation | Not classified for female reproduction | Rat | NOAEL 24 mg/l | 2 generation |
| Cyclohexane | Inhalation | Not classified for male reproduction | Rat | NOAEL 24 mg/l | 2 generation |
| Cyclohexane | Inhalation | Not classified for development | Rat | NOAEL 6.9 mg/l | 2 generation |
| Acetone | Ingestion | Not classified for male reproduction | Rat | NOAEL 1,700 mg/kg/day | 13 weeks |
| Acetone | Inhalation | Not classified for development | Rat | NOAEL 5.2 mg/l | during organogenesis |
| Zinc Oxide | Ingestion | Not classified for reproduction and/or development | Multiple animal species | NOAEL 125 mg/kg/day | premating & during gestation |
| Ethylbenzene | Inhalation | Not classified for development | Rat | NOAEL 4.3 mg/l | premating & during gestation |
| Xylene | Inhalation | Not classified for female reproduction | Human | NOAEL Not available | occupational exposure |
| Xylene | Ingestion | Not classified for development | Mouse | NOAEL Not available | during organogenesis |
| Xylene | Inhalation | Not classified for development | Multiple animal species | NOAEL Not available | during gestation |
| p-Tert-Butylphenol | Ingestion | Not classified for male reproduction | Rat | NOAEL 600 mg/kg/day | 2 generation |
| p-Tert-Butylphenol | Ingestion | Not classified for development | Rat | NOAEL 70 mg/kg/day | 2 generation |
| p-Tert-Butylphenol | Ingestion | Toxic to female reproduction | Rat | NOAEL 200 mg/kg/day | 2 generation |

### Lactation

| Name | Route | Species | Value |
|---|---|---|---|
| Xylene | Ingestion | Mouse | Not classified for effects on or via lactation |

### Target Organ(s)

### Specific Target Organ Toxicity - single exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|---|---|---|---|---|---|---|
| Petroleum Distallates | Inhalation | central nervous system depression | May cause drowsiness or dizziness | similar compoun ds | NOAEL not available | not available |
| Petroleum Distallates | Ingestion | central nervous system depression | May cause drowsiness or dizziness | similar compoun ds | NOAEL not availavle | not available |
| Methyl Ethyl Ketone | Inhalation | central nervous system depression | May cause drowsiness or dizziness | official classifica tion | 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 | Professio nal judgeme nt | 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 |
| Hexane | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | not available |

| | | | | | | |
|---|---|---|---|---|---|---|
| Hexane | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Rabbit | NOAEL Not available | 8 hours |
| Hexane | Inhalation | respiratory system | Not classified | Rat | NOAEL 24.6 mg/l | 8 hours |
| Heptane | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| Heptane | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | |
| Heptane | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| 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 |
| 2-Methylpentane | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Professional judgement | NOAEL Not available | |
| 2-Methylpentane | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | | NOAEL Not available | |
| 2-Methylpentane | Inhalation | cardiac sensitization | Not classified | Dog | NOAEL Not available | |
| 2-Methylpentane | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Professional judgement | NOAEL Not available | |
| 3-Methylpentane | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Professional judgement | NOAEL Not available | |
| 3-Methylpentane | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | | NOAEL Not available | |
| 3-Methylpentane | Inhalation | cardiac sensitization | Not classified | Dog | NOAEL Not available | |
| 3-Methylpentane | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Professional judgement | NOAEL Not available | |
| Magnesium Oxide | Inhalation | respiratory system | Not classified | Human | NOAEL Not available | |
| Cyclohexane | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human and animal | NOAEL Not available | |
| Cyclohexane | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human and animal | NOAEL Not available | |
| Cyclohexane | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Professional judgement | NOAEL Not available | |
| Acetone | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| Acetone | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | |
| Acetone | Inhalation | immune system | Not classified | Human | NOAEL 1.19 mg/l | 6 hours |
| Acetone | Inhalation | liver | Not classified | Guinea pig | NOAEL Not available | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Acetone | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | poisoning and/or abuse |
| Ethylbenzene | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| Ethylbenzene | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human and animal | NOAEL Not available | |
| Ethylbenzene | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Professional judgement | NOAEL Not available | |
| Xylene | Inhalation | auditory system | Causes damage to organs | Rat | LOAEL 6.3 mg/l | 8 hours |
| Xylene | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| Xylene | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | |
| Xylene | Inhalation | eyes | Not classified | Rat | NOAEL 3.5 mg/l | not available |
| Xylene | Inhalation | liver | Not classified | Multiple animal species | NOAEL Not available | |
| Xylene | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Multiple animal species | NOAEL Not available | |
| Xylene | Ingestion | eyes | Not classified | Rat | NOAEL 250 mg/kg | not applicable |
| p-Tert-Butylphenol | Inhalation | respiratory irritation | May cause respiratory irritation | Rat | LOAEL 5.6 mg/l | 4 hours |

## Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|---|---|---|---|---|---|---|
| Petroleum Distallates | Inhalation | peripheral nervous system | May cause damage to organs though prolonged or repeated exposure | similar compounds | NOAEL not available | not available |
| 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 |
| 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 |
| Hexane | Inhalation | peripheral nervous system | Causes damage to organs through prolonged or repeated exposure | Human | NOAEL Not available | occupational exposure |
| Hexane | Inhalation | respiratory system | Some positive data exist, but the data are not sufficient for classification | Mouse | LOAEL 1.76 mg/l | 13 weeks |
| Hexane | Inhalation | liver | Not classified | Rat | NOAEL Not available | 6 months |
| Hexane | Inhalation | kidney and/or bladder | Not classified | Rat | LOAEL 1.76 mg/l | 6 months |
| Hexane | Inhalation | hematopoietic system | Not classified | Mouse | NOAEL 35.2 mg/l | 13 weeks |
| Hexane | Inhalation | auditory system \| immune system \| eyes | Not classified | Human | NOAEL Not available | occupational exposure |
| Hexane | Inhalation | heart \| skin \| | Not classified | Rat | NOAEL 1.76 | 6 months |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | endocrine system | | | mg/l | |
| Hexane | Ingestion | peripheral nervous system | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 1,140 mg/kg/day | 90 days |
| Hexane | Ingestion | endocrine system \| hematopoietic system \| liver \| immune system \| kidney and/or bladder | Not classified | Rat | NOAEL Not available | 13 weeks |
| Heptane | Inhalation | liver \| nervous system \| kidney and/or bladder | Not classified | Rat | NOAEL 12 mg/l | 26 weeks |
| 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 data are not sufficient for classification | Rat | LOAEL 2.3 mg/l | 15 months |
| 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 |
| 2-Methylpentane | Inhalation | peripheral nervous system | Not classified | Rat | NOAEL 5.3 mg/l | 14 weeks |
| 2-Methylpentane | Ingestion | peripheral nervous system | Not classified | Rat | NOAEL Not available | 8 weeks |
| 2-Methylpentane | Ingestion | kidney and/or bladder | Not classified | Rat | LOAEL 2,000 mg/kg | 28 days |
| 3-Methylpentane | Inhalation | peripheral nervous system | Not classified | Rat | NOAEL 5.3 mg/l | 14 weeks |
| 3-Methylpentane | Ingestion | peripheral nervous system | Not classified | Rat | NOAEL Not available | 8 weeks |
| 3-Methylpentane | Ingestion | kidney and/or bladder | Not classified | Rat | LOAEL 2,000 mg/kg | 28 days |
| Cyclohexane | Inhalation | liver | Not classified | Rat | NOAEL 24 mg/l | 90 days |
| Cyclohexane | Inhalation | auditory system | Not classified | Rat | NOAEL 1.7 mg/l | 90 days |
| Cyclohexane | Inhalation | kidney and/or | Not classified | Rabbit | NOAEL 2.7 | 10 weeks |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | bladder | | | mg/l | |
| Cyclohexane | Inhalation | hematopoietic system | Not classified | Mouse | NOAEL 24 mg/l | 14 weeks |
| Cyclohexane | Inhalation | peripheral nervous system | Not classified | Rat | NOAEL 8.6 mg/l | 30 weeks |
| Acetone | Dermal | eyes | Not classified | Guinea pig | NOAEL Not available | 3 weeks |
| Acetone | Inhalation | hematopoietic system | Not classified | Human | NOAEL 3 mg/l | 6 weeks |
| Acetone | Inhalation | immune system | Not classified | Human | NOAEL 1.19 mg/l | 6 days |
| Acetone | Inhalation | kidney and/or bladder | Not classified | Guinea pig | NOAEL 119 mg/l | not available |
| Acetone | Inhalation | heart \| liver | Not classified | Rat | NOAEL 45 mg/l | 8 weeks |
| Acetone | Ingestion | kidney and/or bladder | Not classified | Rat | NOAEL 900 mg/kg/day | 13 weeks |
| Acetone | Ingestion | heart | Not classified | Rat | NOAEL 2,500 mg/kg/day | 13 weeks |
| Acetone | Ingestion | hematopoietic system | Not classified | Rat | NOAEL 200 mg/kg/day | 13 weeks |
| Acetone | Ingestion | liver | Not classified | Mouse | NOAEL 3,896 mg/kg/day | 14 days |
| Acetone | Ingestion | eyes | Not classified | Rat | NOAEL 3,400 mg/kg/day | 13 weeks |
| Acetone | Ingestion | respiratory system | Not classified | Rat | NOAEL 2,500 mg/kg/day | 13 weeks |
| Acetone | Ingestion | muscles | Not classified | Rat | NOAEL 2,500 mg/kg | 13 weeks |
| Acetone | Ingestion | skin \| bone, teeth, nails, and/or hair | Not classified | Mouse | NOAEL 11,298 mg/kg/day | 13 weeks |
| 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 |
| Ethylbenzene | Inhalation | kidney and/or bladder | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 1.1 mg/l | 2 years |
| Ethylbenzene | Inhalation | liver | Some positive data exist, but the data are not sufficient for classification | Mouse | NOAEL 1.1 mg/l | 103 weeks |
| Ethylbenzene | Inhalation | hematopoietic system | Not classified | Rat | NOAEL 3.4 mg/l | 28 days |
| Ethylbenzene | Inhalation | auditory system | Not classified | Rat | NOAEL 2.4 mg/l | 5 days |
| Ethylbenzene | Inhalation | endocrine system | Not classified | Mouse | NOAEL 3.3 mg/l | 103 weeks |
| Ethylbenzene | Inhalation | gastrointestinal tract | Not classified | Rat | NOAEL 3.3 mg/l | 2 years |
| Ethylbenzene | Inhalation | bone, teeth, nails, and/or hair \| muscles | Not classified | Multiple animal species | NOAEL 4.2 mg/l | 90 days |
| Ethylbenzene | Inhalation | heart \| immune system \| respiratory system | Not classified | Multiple animal species | NOAEL 3.3 mg/l | 2 years |
| Ethylbenzene | Ingestion | liver \| kidney and/or bladder | Not classified | Rat | NOAEL 680 mg/kg/day | 6 months |
| Xylene | Inhalation | nervous system | Causes damage to organs through prolonged or repeated exposure | Rat | LOAEL 0.4 mg/l | 4 weeks |
| Xylene | Inhalation | auditory system | May cause damage to organs | Rat | LOAEL 7.8 | 5 days |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | though prolonged or repeated exposure | | mg/l | |
| Xylene | Inhalation | liver | Not classified | Multiple animal species | NOAEL Not available | |
| Xylene | Inhalation | heart \| endocrine system \| gastrointestinal tract \| hematopoietic system \| muscles \| kidney and/or bladder \| respiratory system | Not classified | Multiple animal species | NOAEL 3.5 mg/l | 13 weeks |
| Xylene | Ingestion | auditory system | Not classified | Rat | NOAEL 900 mg/kg/day | 2 weeks |
| Xylene | Ingestion | kidney and/or bladder | Not classified | Rat | NOAEL 1,500 mg/kg/day | 90 days |
| Xylene | Ingestion | liver | Not classified | Multiple animal species | NOAEL Not available | |
| Xylene | Ingestion | heart \| skin \| endocrine system \| bone, teeth, nails, and/or hair \| hematopoietic system \| immune system \| nervous system \| respiratory system | Not classified | Mouse | NOAEL 1,000 mg/kg/day | 103 weeks |
| p-Tert-Butylphenol | Ingestion | endocrine system \| liver \| kidney and/or bladder | Not classified | Rat | NOAEL 600 mg/kg/day | 2 generation |
| p-Tert-Butylphenol | Ingestion | blood | Not classified | Rat | NOAEL 200 mg/kg | 6 weeks |

**Aspiration Hazard**

| Name | Value |
|---|---|
| Petroleum Distallates | Aspiration hazard |
| Hexane | Aspiration hazard |
| Heptane | Aspiration hazard |
| Toluene | Aspiration hazard |
| 2-Methylpentane | Aspiration hazard |
| 3-Methylpentane | Aspiration hazard |
| Cyclohexane | Aspiration hazard |
| Ethylbenzene | Aspiration hazard |
| Xylene | 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 |
|---|---|---|---|---|---|---|
| Petroleum Distallates | 64741-84-0 | Green algae | Estimated | 72 hours | EC50 | 30 mg/l |
| Petroleum Distallates | 64741-84-0 | Rainbow Trout | Estimated | 96 hours | LL50 | 11.4 mg/l |
| Petroleum Distallates | 64741-84-0 | Water flea | Estimated | 48 hours | EL50 | 3 mg/l |
| Petroleum Distallates | 64741-84-0 | Green algae | Estimated | 72 hours | NOEL | 3 mg/l |
| Petroleum Distallates | 64741-84-0 | Water flea | Estimated | 21 days | NOEL | 1 mg/l |
| 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 |
| Magnesium Resinate | 68037-42-3 | N/A | Data not available or insufficient for classification | N/A | N/A | n/a |
| Hexane | 110-54-3 | Fathead Minnow | Experimental | 96 hours | LC50 | 2.5 mg/l |
| Hexane | 110-54-3 | Water flea | Experimental | 48 hours | LC50 | 3.9 mg/l |
| Polychloroprene | 9010-98-4 | N/A | Data not available or insufficient for classification | N/A | N/A | N/A |
| P-TERT-BUTYLPHENOL-FORMALDEHYDE RESIN | 25085-50-1 | N/A | Data not available or insufficient for classification | N/A | N/A | N/A |
| Heptane | 142-82-5 | Water flea | Experimental | 48 hours | EC50 | 1.5 mg/l |
| Heptane | 142-82-5 | Water flea | Estimated | 21 days | NOEC | 0.17 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) |
| Magnesium Oxide | 1309-48-4 | N/A | Data not available or insufficient for classification | N/A | N/A | N/A |
| 2-Methylpentane | 107-83-5 | N/A | Data not available or insufficient for classification | N/A | N/A | N/A |
| 3-Methylpentane | 96-14-0 | N/A | Data not available | N/A | N/A | N/A |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | or insufficient for classification | | | |
| Cyclohexane | 110-82-7 | Bacteria | Experimental | 24 hours | IC50 | 97 mg/l |
| Cyclohexane | 110-82-7 | Fathead Minnow | Experimental | 96 hours | LC50 | 4.53 mg/l |
| Cyclohexane | 110-82-7 | Water flea | Experimental | 48 hours | EC50 | 0.9 mg/l |
| Acetone | 67-64-1 | Algae or other aquatic plants | Experimental | 96 hours | EC50 | 11,493 mg/l |
| Acetone | 67-64-1 | Invertebrate | Experimental | 24 hours | LC50 | 2,100 mg/l |
| Acetone | 67-64-1 | Rainbow Trout | Experimental | 96 hours | LC50 | 5,540 mg/l |
| Acetone | 67-64-1 | Water flea | Experimental | 21 days | NOEC | 1,000 mg/l |
| Acetone | 67-64-1 | Bacteria | Experimental | 16 hours | NOEC | 1,700 mg/l |
| Acetone | 67-64-1 | Redworm | Experimental | 48 hours | LC50 | >100 |
| Ethylbenzene | 100-41-4 | Activated sludge | Experimental | 49 hours | EC50 | 130 mg/l |
| Ethylbenzene | 100-41-4 | Atlantic Silverside | Experimental | 96 hours | LC50 | 5.1 mg/l |
| Ethylbenzene | 100-41-4 | Green algae | Experimental | 96 hours | EC50 | 3.6 mg/l |
| Ethylbenzene | 100-41-4 | Mysid Shrimp | Experimental | 96 hours | LC50 | 2.6 mg/l |
| Ethylbenzene | 100-41-4 | Rainbow Trout | Experimental | 96 hours | LC50 | 4.2 mg/l |
| Ethylbenzene | 100-41-4 | Water flea | Experimental | 48 hours | EC50 | 1.8 mg/l |
| Ethylbenzene | 100-41-4 | Water flea | Experimental | 7 days | NOEC | 0.96 mg/l |
| Rosin | 8050-09-7 | Bacteria | Experimental | N/A | EC50 | 76.1 mg/l |
| Rosin | 8050-09-7 | Green algae | Experimental | 72 hours | EL50 | >100 mg/l |
| Rosin | 8050-09-7 | Water flea | Experimental | 48 hours | EL50 | 911 mg/l |
| Rosin | 8050-09-7 | Zebra Fish | Experimental | 96 hours | LL50 | >1 mg/l |
| Rosin | 8050-09-7 | Green algae | Experimental | 72 hours | NOEL | 100 mg/l |
| Styrenated Phenol | 61788-44-1 | Activated sludge | Experimental | 3 hours | EC50 | 362 mg/l |
| Styrenated Phenol | 61788-44-1 | Green algae | Experimental | 72 hours | EC50 | 1.35 mg/l |
| Styrenated Phenol | 61788-44-1 | Medaka | Experimental | 96 hours | LC50 | 5.6 mg/l |
| Styrenated Phenol | 61788-44-1 | Water flea | Experimental | 48 hours | EC50 | 4.6 mg/l |
| Styrenated Phenol | 61788-44-1 | Green algae | Experimental | 72 hours | NOEC | 0.42 mg/l |
| Styrenated Phenol | 61788-44-1 | Water flea | Experimental | 21 days | NOEC | 0.2 mg/l |
| Xylene | 1330-20-7 | Activated sludge | Estimated | 3 hours | NOEC | 157 mg/l |
| Xylene | 1330-20-7 | Green algae | Estimated | 72 hours | EC50 | 4.36 mg/l |
| Xylene | 1330-20-7 | Rainbow Trout | Estimated | 96 hours | LC50 | 2.6 mg/l |
| Xylene | 1330-20-7 | Water flea | Estimated | 48 hours | EC50 | 3.82 mg/l |
| Xylene | 1330-20-7 | Green algae | Estimated | 72 hours | NOEC | 0.44 mg/l |
| Xylene | 1330-20-7 | Water flea | Estimated | 7 days | NOEC | 0.96 mg/l |
| Xylene | 1330-20-7 | Rainbow Trout | Experimental | 56 days | NOEC | >1.3 mg/l |
| 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 |
| p-Tert-Butylphenol | 98-54-4 | Ciliated protozoa | Experimental | 60 hours | IC50 | 18.4 mg/l |
| p-Tert-Butylphenol | 98-54-4 | Green algae | Experimental | 72 hours | ErC50 | 14 mg/l |
| p-Tert-Butylphenol | 98-54-4 | Invertebrate | Experimental | 96 hours | LC50 | 1.9 mg/l |
| p-Tert-Butylphenol | 98-54-4 | Medaka | Experimental | 96 hours | LC50 | 5.1 mg/l |
| p-Tert-Butylphenol | 98-54-4 | Water flea | Experimental | 48 hours | EC50 | 3.9 mg/l |
| p-Tert-Butylphenol | 98-54-4 | Fathead Minnow | Experimental | 128 days | NOEC | 0.01 mg/l |
| p-Tert-Butylphenol | 98-54-4 | Green algae | Experimental | 72 hours | NOEC | 0.32 mg/l |
| p-Tert-Butylphenol | 98-54-4 | Water flea | Experimental | 21 days | NOEC | 0.73 mg/l |

### 12.2. Persistence and degradability

| Material | CAS No. | Test Type | Duration | Study Type | Test Result | Protocol |
|---|---|---|---|---|---|---|
| Petroleum Distallates | 64741-84-0 | Estimated Biodegradation | 28 days | Biological Oxygen Demand | 98 %BOD/ThOD | OECD 301F - Manometric Respiro |
| Methyl Ethyl Ketone | 78-93-3 | Experimental Biodegradation | 28 days | Biological Oxygen Demand | 98 %BOD/ThOD | OECD 301D - Closed Bottle Test |
| Magnesium Resinate | 68037-42-3 | Data not availbl-insufficient | N/A | N/A | N/A | N/A |

| | | | | | | |
|---|---|---|---|---|---|---|
| Hexane | 110-54-3 | Experimental Bioconcentration | 28 days | Biological Oxygen Demand | 100 %BOD/ThOD | OECD 301C - MITI (I) |
| Hexane | 110-54-3 | Experimental Photolysis | | Photolytic half-life (in air) | 5.4 days (t 1/2) | |
| Polychloroprene | 9010-98-4 | Data not availbl-insufficient | N/A | N/A | N/A | N/A |
| P-TERT-BUTYLPHENOL-FORMALDEHYDE RESIN | 25085-50-1 | Experimental Biodegradation | 28 days | Carbon dioxide evolution | 0 %CO2 evolution/THCO2 evolution | |
| Heptane | 142-82-5 | Experimental Biodegradation | 28 days | Biological Oxygen Demand | 101 %BOD/ThOD | OECD 301C - MITI (I) |
| Heptane | 142-82-5 | Experimental Photolysis | | Photolytic half-life (in air) | 4.24 days (t 1/2) | |
| 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) | |
| Magnesium Oxide | 1309-48-4 | Data not availbl-insufficient | N/A | N/A | N/A | N/A |
| 2-Methylpentane | 107-83-5 | Experimental Biodegradation | 28 days | Biological Oxygen Demand | 93 %BOD/ThOD | OECD 301C - MITI (I) |
| 2-Methylpentane | 107-83-5 | Experimental Photolysis | | Photolytic half-life (in air) | 5.4 days (t 1/2) | |
| 3-Methylpentane | 96-14-0 | Estimated Biodegradation | 28 days | Biological Oxygen Demand | 93 %BOD/ThOD | OECD 301C - MITI (I) |
| 3-Methylpentane | 96-14-0 | Experimental Photolysis | | Photolytic half-life (in air) | 5.3 days (t 1/2) | |
| Cyclohexane | 110-82-7 | Experimental Biodegradation | 28 days | Biological Oxygen Demand | 77 %BOD/ThOD | OECD 301F - Manometric Respiro |
| Cyclohexane | 110-82-7 | Experimental Photolysis | | Photolytic half-life (in air) | 4.1 days (t 1/2) | |
| Acetone | 67-64-1 | Experimental Biodegradation | 28 days | Biological Oxygen Demand | 78 %BOD/ThOD | OECD 301D - Closed Bottle Test |
| Acetone | 67-64-1 | Experimental Photolysis | | Photolytic half-life (in air) | 147 days (t 1/2) | |
| Ethylbenzene | 100-41-4 | Experimental Biodegradation | 28 days | Carbon dioxide evolution | 70-80 %CO2 evolution/THCO2 evolution | ISO 14593 Inorg C Headspace |
| Ethylbenzene | 100-41-4 | Experimental Photolysis | | Photolytic half-life (in air) | 4.26 days (t 1/2) | |
| Rosin | 8050-09-7 | Experimental Biodegradation | 28 days | Carbon dioxide evolution | 64 %CO2 evolution/THCO2 evolution | OECD 301B - Mod. Sturm or CO2 |
| Styrenated Phenol | 61788-44-1 | Experimental Biodegradation | 28 days | Biological Oxygen Demand | 7 %BOD/ThOD | OECD 301F - Manometric Respiro |
| Xylene | 1330-20-7 | Experimental Biodegradation | 28 days | Biological Oxygen Demand | 90-98 %BOD/ThOD | OECD 301F - Manometric Respiro |
| Xylene | 1330-20-7 | Experimental Photolysis | | Photolytic half-life (in air) | 1.4 days (t 1/2) | |
| Zinc Oxide | 1314-13-2 | Data not availbl-insufficient | N/A | N/A | N/A | N/A |
| p-Tert-Butylphenol | 98-54-4 | Experimental Biodegradation | 28 days | Dissolv. Organic Carbon Deplet | 98 %removal of DOC | EC C.4.A. DOC Die-Away Test |

### 12.3. Bioaccumulative potential

| Material | CAS No. | Test Type | Duration | Study Type | Test Result | Protocol |
|---|---|---|---|---|---|---|
| Petroleum Distallates | 64741-84-0 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Methyl Ethyl Ketone | 78-93-3 | Experimental Bioconcentration | | Log of Octanol/H2O part. coeff | 0.3 | OECD 117 log Kow HPLC method |
| Magnesium Resinate | 68037-42-3 | Data not available or insufficient for | N/A | N/A | N/A | N/A |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | classification | | | | |
| Hexane | 110-54-3 | Modeled Bioconcentration | | Bioaccumulation Factor | 50 | Catalogic™ |
| Polychloroprene | 9010-98-4 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| P-TERT-BUTYLPHENOL-FORMALDEHYDE RESIN | 25085-50-1 | Estimated Bioconcentration | | Bioaccumulation Factor | 7.4 | |
| Heptane | 142-82-5 | Estimated Bioconcentration | | Bioaccumulation Factor | 105 | |
| 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 | |
| Magnesium Oxide | 1309-48-4 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| 2-Methylpentane | 107-83-5 | Estimated Bioconcentration | | Bioaccumulation Factor | 63 | |
| 3-Methylpentane | 96-14-0 | Estimated Bioconcentration | | Bioaccumulation Factor | 150 | |
| Cyclohexane | 110-82-7 | Experimental BCF - Fish | 56 days | Bioaccumulation Factor | 129 | OECD305-Bioconcentration |
| Cyclohexane | 110-82-7 | Experimental Bioconcentration | | Log of Octanol/H2O part. coeff | 3.44 | |
| Acetone | 67-64-1 | Experimental BCF - Other | | Bioaccumulation Factor | 0.65 | |
| Acetone | 67-64-1 | Experimental Bioconcentration | | Log of Octanol/H2O part. coeff | -0.24 | |
| Ethylbenzene | 100-41-4 | Experimental BCF - Fish | 42 days | Bioaccumulation Factor | 1 | |
| Rosin | 8050-09-7 | Analogous Compound BCF - Fish | 20 days | Bioaccumulation Factor | 129 | |
| Styrenated Phenol | 61788-44-1 | Experimental BCF - Fish | 10 days | Bioaccumulation Factor | 10395 | |
| Xylene | 1330-20-7 | Experimental BCF - Fish | 56 days | Bioaccumulation Factor | 25.9 | |
| Zinc Oxide | 1314-13-2 | Experimental BCF - Fish | 56 days | Bioaccumulation Factor | ≤217 | OECD305-Bioconcentration |
| p-Tert-Butylphenol | 98-54-4 | Experimental BCF - Fish | 56 days | Bioaccumulation Factor | 88 | OECD305-Bioconcentration |
| p-Tert-Butylphenol | 98-54-4 | Experimental Bioconcentration | | Log of Octanol/H2O part. coeff | 3 | OECD 117 log Kow HPLC method |

**12.4. Mobility in soil**
Please contact manufacturer for more details

**12.5 Other adverse effects**
No information available

## SECTION 13: Disposal considerations

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

Incinerate in a permitted waste incineration facility. Combustion products will include halogen acid (HCl/HF/HBr). Facility must be capable of handling halogenated materials. As a disposal alternative, utilize an acceptable permitted waste disposal

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

## SECTION 14: Transport Information

**Marine Transport (IMDG)**

**UN Number:**UN1133
**Proper Shipping Name:**ADHESIVES
**Technical Name:**None assigned.
**Hazard Class/Division:**3
**Subsidiary Risk:**None assigned.
**Packing Group:**II
**Limited Quantity:**Yes
**Marine Pollutant:** No
**Marine Pollutant Technical Name:** None assigned.
**Other Dangerous Goods Descriptions:**
None assigned.

**Air Transport (IATA)**

**UN Number:**UN1133
**Proper Shipping Name:**ADHESIVES
**Technical Name:**None assigned.
**Hazard Class/Division:**3
**Subsidiary Risk:**None assigned.
**Packing Group:**II
**Limited Quantity:**None assigned.
**Marine Pollutant:** No
**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

**Revision information:**
No revision information

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

**3M Philippines SDSs are available at www.3m.com/ph**