# Safety Data Sheet

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## SECTION 1: Identification

### 1.1. Product identifier
3M™ Scotch-Weld™ Neoprene High Performance Contact Adhesive EC-1357 Grey-Green

**Product Identification Numbers**

| ID Number | UPC | ID Number | UPC |
|---|---|---|---|
| 41-0001-5458-7 | | 41-3588-1659-7 | |
| 62-1357-5540-3 | 00-21200-19891-5 | 62-1357-6540-2 | 00-21200-19893-9 |
| 87-2500-0403-0 | 00048011986395 | 87-2500-0422-0 | |
| 87-3300-0146-9 | | 87-3300-0627-8 | |
| 87-3300-0628-6 | | 87-3300-0689-8 | |
| 87-3300-0690-6 | | 87-3300-0691-4 | |

7000000801, 7000000802, 7100029230, 7000058947, 7010350507, 7100178966

### 1.2. Recommended use and restrictions on use

**Recommended use**
Contact Adhesive

### 1.3. Supplier's details
**MANUFACTURER:** 3M
**DIVISION:** Automotive and Aerospace Solutions Division
**ADDRESS:** 3M Center, St. Paul, MN 55144-1000, USA
**Telephone:** 1-888-3M HELPS (1-888-364-3577)

### 1.4. Emergency telephone number
1-800-364-3577 or (651) 737-6501 (24 hours)

## SECTION 2: Hazard identification

### 2.1. Hazard classification
Flammable Liquid: Category 2.

Serious Eye Damage/Irritation: Category 2A.
Skin Corrosion/Irritation: Category 2.
Skin Sensitizer: Category 1A.
Reproductive Toxicity: Category 1B.
Carcinogenicity: Category 2.
Specific Target Organ Toxicity (single exposure): Category 3.
Specific Target Organ Toxicity (repeated exposure): Category 1.

**2.2. Label elements**
**Signal word**
Danger

**Symbols**
Flame | Exclamation mark | Health Hazard |

**Pictograms**



**Hazard Statements**
Highly flammable liquid and vapor.

Causes serious eye irritation.
Causes skin irritation.
May cause an allergic skin reaction.
May cause drowsiness or dizziness.
May damage fertility or the unborn child.
Suspected of causing cancer.

Causes damage to organs through prolonged or repeated exposure:
nervous system |
sensory organs |

**Precautionary Statements**

**Prevention:**
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Ground/bond container and receiving equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Keep container tightly closed.
Use explosion-proof electrical/ventilating/lighting equipment.
Do not breathe dust/fume/gas/mist/vapors/spray.
Use only outdoors or in a well-ventilated area.
Wear protective gloves and eye/face protection.
Do not eat, drink or smoke when using this product.
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.

**Response:**

IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
IF exposed or concerned: Get medical advice/attention.
In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

**Storage:**
Store in a well-ventilated place. Keep container tightly closed.
Keep cool.
Store locked up.

**Disposal:**
Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

## SECTION 3: Composition/information on ingredients

| Ingredient | C.A.S. No. | % by Wt |
|---|---|---|
| Naphtha (petroleum), solvent-refined light | 64741-84-0 | 40 - 50 Trade Secret * |
| HEXANE | 110-54-3 | 5 - 25 Trade Secret * |
| POLYCHLOROPRENE | 9010-98-4 | 10 - 20 |
| ACETONE | 67-64-1 | 10 - 19 Trade Secret * |
| METHYL ETHYL KETONE | 78-93-3 | 5 - 15 Trade Secret * |
| Heptane | 142-82-5 | 4 - 12 Trade Secret * |
| P-TERT-BUTYLPHENOL-FORMALDEHYDE RESIN | 25085-50-1 | 2 - 10 |
| TOLUENE | 108-88-3 | 2 - 7 Trade Secret * |
| 2-METHYLPENTANE | 107-83-5 | 4 - 6 Trade Secret * |
| 3-METHYLPENTANE | 96-14-0 | 4 - 6 Trade Secret * |
| CYCLOHEXANE | 110-82-7 | < 5 Trade Secret * |
| Magnesium Oxide | 1309-48-4 | < 5 |
| ROSIN | 8050-09-7 | < 1 |
| Zinc Oxide | 1314-13-2 | < 1 |
| Ethylbenzene | 100-41-4 | < 0.5 Trade Secret * |
| Methyl Alcohol | 67-56-1 | < 0.5 Trade Secret * |
| Styrenated Phenol | 61788-44-1 | < 0.5 Trade Secret * |
| Benzene | 71-43-2 | < 0.1 |

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

## 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 |
| Formaldehyde | During Combustion |
| Carbon monoxide | During Combustion |
| Carbon dioxide | During Combustion |
| Hydrogen Chloride | During Combustion |
| Ketones | 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. Use personal protective equipment based on the results of an exposure assessment. Refer to Section 8 for PPE recommendations. If anticipated exposure resulting from an accidental release exceeds the protective capabilities of the PPE listed in Section 8, or are unknown, select PPE that offers an appropriate level of protection. Consider the physical and chemical hazards of the material when doing so. Examples of PPE ensembles for emergency response could include wearing bunker gear for a release of flammable material; wearing chemical protective clothing if the spilled material is a corrosive, a sensitizer, a significant dermal irritant, or can be absorbed through the skin; or donning a positive pressure supplied-air respirator for chemicals with inhalation hazards. For information regarding physical and health hazards, refer to sections 2 and 11 of the SDS.

**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**
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 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 | OSHA | TWA:435 mg/m3(100 ppm) | |
| HEXANE (ISOMERS OTHER THAN N-HEXANE) | 107-83-5 | ACGIH | TWA:200 ppm | A3: Confirmed animal carcin. |
| TOLUENE | 108-88-3 | ACGIH | TWA:20 ppm | A4: Not class. as human carcin, Ototoxicant |
| TOLUENE | 108-88-3 | OSHA | TWA:200 ppm;CEIL:300 ppm | |
| HEXANE | 110-54-3 | ACGIH | TWA:50 ppm | Danger of cutaneous absorption |
| HEXANE | 110-54-3 | OSHA | TWA:1800 mg/m3(500 ppm) | |
| CYCLOHEXANE | 110-82-7 | ACGIH | TWA:100 ppm | |
| CYCLOHEXANE | 110-82-7 | OSHA | TWA: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 | OSHA | TWA(as total particulates):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 | OSHA | TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3;TWA(as fume):5 mg/m3 | |
| Heptane | 142-82-5 | OSHA | TWA:2000 mg/m3(500 ppm) | |
| Heptane, all isomers | 142-82-5 | ACGIH | TWA:200 ppm;STEL:400 ppm | Ototoxicant |
| Naphtha | 64741-84-0 | OSHA | TWA:400 mg/m3(100 ppm) | |
| Methyl Alcohol | 67-56-1 | ACGIH | TWA:200 ppm;STEL:250 ppm | Danger of cutaneous absorption |
| Methyl Alcohol | 67-56-1 | OSHA | TWA:260 mg/m3(200 ppm) | |
| ACETONE | 67-64-1 | ACGIH | TWA:250 ppm;STEL:500 ppm | A4: Not class. as human carcin |
| ACETONE | 67-64-1 | OSHA | TWA:2400 mg/m3(1000 ppm) | |
| Benzene | 71-43-2 | ACGIH | TWA:0.02 ppm | A1: Confirmed human carcin., Danger of cutaneous absorption |
| Benzene | 71-43-2 | OSHA | TWA:1 ppm;TWA:10 ppm;STEL:5 ppm;CEIL:25 ppm | 29 CFR 1910.1028 |
| METHYL ETHYL KETONE | 78-93-3 | ACGIH | TWA:75 ppm;STEL:150 ppm | Danger of cutaneous absorption |
| METHYL ETHYL KETONE | 78-93-3 | OSHA | TWA:590 mg/m3(200 ppm) | |
| ROSIN CORE SOLDER PYROLYSIS PRODUCTS | 8050-09-7 | ACGIH | TWA(as Resin, inhalable fraction):0.001 mg/m3 | Dermal/Respiratory Sensitizer |
| HEXANE (ISOMERS OTHER THAN N-HEXANE) | 96-14-0 | ACGIH | TWA:200 ppm | A3: Confirmed animal carcin. |

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
OSHA : United States Department of Labor - Occupational Safety and Health Administration
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:
Full Face Shield
Indirect Vented Goggles

**Skin/hand protection**
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the

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

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

If this product is used in a manner that presents a higher potential for exposure (e.g., spraying, high splash potential, etc.), then use of a protective apron may be necessary. See recommended glove material(s) for determining appropriate apron material(s). If a glove material is not available as an apron, polymer laminate is a suitable option.

**Respiratory protection**

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

| | |
|---|---|
| **Appearance** | |
| **Physical state** | Liquid |
| **Color** | Gray, Green |
| **Odor** | Strong Petroleum |
| **Odor threshold** | *No Data Available* |
| **pH** | *No Data Available* |
| **Melting point** | *No Data Available* |
| **Boiling Point** | 132 ºF [*Details:*CONDITIONS: (acetone)] |
| **Flash Point** | -14 ºF [*Test Method:*Tagliabue Closed Cup] |
| **Evaporation rate** | >=2 [*Ref Std:*WATER=1] |
| **Flammability (solid, gas)** | Not Applicable |
| **Flammable Limits(LEL)** | 1 % volume |
| **Flammable Limits(UEL)** | 12.8 % volume |
| **Vapor Pressure** | 180 mmHg [*Details:*CONDITIONS: @ 68F] |
| **Vapor Density** | 3 [*Ref Std:*AIR=1] |
| **Density** | 0.84 g/ml |
| **Specific Gravity** | .84 [*Ref Std:*WATER=1] |
| **Solubility in Water** | Slight (less than 10%) |
| **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** | 200 - 1,000 centipoise |
| **Hazardous Air Pollutants** | 1.2 lb HAPS/lb solids [*Test Method:*Calculated] |
| **Molecular weight** | *No Data Available* |
| **Volatile Organic Compounds** | 668 g/l [*Test Method:*calculated SCAQMD rule 443.1] |
| **Percent volatile** | 80 % |
| **VOC Less H2O & Exempt Solvents** | 813 g/l [*Test Method:*calculated SCAQMD rule 443.1] |

# SECTION 10: Stability and reactivity

**10.1. Reactivity**
This material is considered to be non reactive under normal use conditions.

**10.2. Chemical stability**
Stable.

**10.3. Possibility of hazardous reactions**
Hazardous polymerization will not occur.

**10.4. Conditions to avoid**
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.

May cause additional health effects (see below).

**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.

| Ingredient | CAS No. | Class Description | Regulation |
|---|---|---|---|
| Benzene | 71-43-2 | Known To Be Human Carcinogen. | National Toxicology Program Carcinogens |
| Benzene | 71-43-2 | Grp. 1: Carcinogenic to humans | International Agency for Research on Cancer |
| BENZENE | 71-43-2 | Cancer hazard | OSHA Carcinogens |
| Ethylbenzene | 100-41-4 | Grp. 2B: Possible human carc. | International Agency for Research on 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 |
| Naphtha (petroleum), solvent-refined light | Dermal | Rat | LD50 > 2,800 mg/kg |
| Naphtha (petroleum), solvent-refined light | Inhalation-Vapor (4 hours) | Rat | LC50 > 25.2 mg/l |
| Naphtha (petroleum), solvent-refined light | Ingestion | Rat | LD50 > 5,840 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 |
| 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 |

| | | | |
|---|---|---|---|
| Heptane | Dermal | similar compounds | LD50 > 2,000 mg/kg |
| Heptane | Inhalation-Vapor (4 hours) | similar compounds | LC50 > 33.5 mg/l |
| Heptane | Ingestion | similar compounds | LD50 > 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 |
| POLYCHLOROPRENE | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| POLYCHLOROPRENE | Ingestion | Rat | LD50 > 20,000 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 |
| 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 |
| 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 |
| 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 |
| 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 hours) | Rat | LC50 17.4 mg/l |
| Ethylbenzene | Ingestion | Rat | LD50 4,769 mg/kg |
| Styrenated Phenol | Dermal | Rat | LD50 > 2,000 mg/kg |
| Styrenated Phenol | Ingestion | Rat | LD50 > 2,000 mg/kg |
| Methyl Alcohol | Dermal | | LD50 estimated to be 1,000 - 2,000 mg/kg |
| Methyl Alcohol | Inhalation-Vapor | | LC50 estimated to be 10 - 20 mg/l |
| Methyl Alcohol | Ingestion | | LD50 estimated to be 50 - 300 mg/kg |
| Benzene | Dermal | Multiple animal species | LD50 > 8,260 mg/kg |
| Benzene | Inhalation-Vapor (4 | Rat | LC50 43.8 mg/l |

| | | | |
|---|---|---|---|
| | hours) | | |
| Benzene | Ingestion | Rat | LD50 5,970 mg/kg |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name | Species | Value |
|---|---|---|
| Naphtha (petroleum), solvent-refined light | Rabbit | Irritant |
| HEXANE | Human and animal | Mild irritant |
| ACETONE | Mouse | Minimal irritation |
| Heptane | Professional judgement | Mild irritant |
| METHYL ETHYL KETONE | Rabbit | Minimal irritation |
| POLYCHLOROPRENE | Human | No significant irritation |
| 2-METHYLPENTANE | Professional judgement | Mild irritant |
| 3-METHYLPENTANE | Professional judgement | Mild irritant |
| TOLUENE | Rabbit | Irritant |
| Magnesium Oxide | Professional judgement | No significant irritation |
| CYCLOHEXANE | Rabbit | Mild irritant |
| Zinc Oxide | Human and animal | No significant irritation |
| ROSIN | Rabbit | No significant irritation |
| Ethylbenzene | Rabbit | Mild irritant |
| Styrenated Phenol | Rabbit | No significant irritation |
| Methyl Alcohol | Rabbit | Mild irritant |
| Benzene | Rabbit | Irritant |

**Serious Eye Damage/Irritation**

| Name | Species | Value |
|---|---|---|
| Naphtha (petroleum), solvent-refined light | Rabbit | Mild irritant |
| HEXANE | Rabbit | Mild irritant |
| ACETONE | Rabbit | Severe irritant |
| Heptane | similar compounds | Mild irritant |
| METHYL ETHYL KETONE | Rabbit | Severe irritant |
| POLYCHLOROPRENE | Professional judgement | No significant irritation |
| 2-METHYLPENTANE | Professional judgement | Moderate irritant |
| 3-METHYLPENTANE | Professional judgement | Moderate irritant |
| TOLUENE | Rabbit | Moderate irritant |
| CYCLOHEXANE | Rabbit | Mild irritant |

| | | |
|---|---|---|
| Zinc Oxide | Rabbit | Mild irritant |
| ROSIN | Rabbit | Mild irritant |
| Ethylbenzene | Rabbit | Moderate irritant |
| Styrenated Phenol | Rabbit | Mild irritant |
| Methyl Alcohol | Rabbit | Moderate irritant |
| Benzene | Rabbit | Severe irritant |

**Skin Sensitization**

| Name | Species | Value |
|---|---|---|
| Naphtha (petroleum), solvent-refined light | Guinea pig | Not classified |
| HEXANE | Human | Not classified |
| Heptane | similar compounds | Not classified |
| TOLUENE | Guinea pig | Not classified |
| P-TERT-BUTYLPHENOL-FORMALDEHYDE RESIN | Human | Some positive data exist, but the data are not sufficient for classification |
| Zinc Oxide | Guinea pig | Not classified |
| ROSIN | Guinea pig | Sensitizing |
| Ethylbenzene | Human | Not classified |
| Styrenated Phenol | Mouse | Sensitizing |
| Methyl Alcohol | Guinea pig | Not classified |
| Benzene | Multiple animal species | Not classified |

**Respiratory Sensitization**

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

**Germ Cell Mutagenicity**

| Name | Route | Value |
|---|---|---|
| HEXANE | In Vitro | Not mutagenic |
| HEXANE | In vivo | Not mutagenic |
| ACETONE | In vivo | Not mutagenic |
| ACETONE | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Heptane | In Vitro | Not mutagenic |
| METHYL ETHYL KETONE | 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 |
| 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 |
| Methyl Alcohol | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Methyl Alcohol | In vivo | Some positive data exist, but the data are not sufficient for classification |
| Benzene | In Vitro | Some positive data exist, but the data are not |

| | | |
|---|---|---|
| | | sufficient for classification |
| Benzene | In vivo | Mutagenic |

## Carcinogenicity

| Name | Route | Species | Value |
|---|---|---|---|
| HEXANE | Dermal | Mouse | Not carcinogenic |
| HEXANE | Inhalation | Mouse | Some positive data exist, but the data are not sufficient for classification |
| ACETONE | Not Specified | Multiple animal species | Not carcinogenic |
| METHYL ETHYL KETONE | Inhalation | Human | Not carcinogenic |
| 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 |
| Ethylbenzene | Inhalation | Multiple animal species | Carcinogenic |
| Methyl Alcohol | Inhalation | Multiple animal species | Not carcinogenic |
| Benzene | Dermal | Mouse | Carcinogenic |
| Benzene | Ingestion | Multiple animal species | Carcinogenic |
| Benzene | Inhalation | Human | Carcinogenic |

## Reproductive Toxicity

## Reproductive and/or Developmental Effects

| Name | Route | Value | Species | Test Result | Exposure Duration |
|---|---|---|---|---|---|
| Naphtha (petroleum), solvent-refined light | Ingestion | Toxic to male reproduction | similar compounds | NOAEL not available | not available |
| Naphtha (petroleum), solvent-refined light | Inhalation | Toxic to male reproduction | similar compounds | NOAEL not available | not available |
| 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 |
| 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 |
| METHYL ETHYL KETONE | Inhalation | Not classified for development | Rat | LOAEL 8.8 mg/l | during gestation |
| 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 |
| 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 |
| Methyl Alcohol | Ingestion | Not classified for male reproduction | Rat | NOAEL 1,600 mg/kg/day | 21 days |
| Methyl Alcohol | Ingestion | Toxic to development | Mouse | LOAEL 4,000 mg/kg/day | during organogenesis |
| Methyl Alcohol | Inhalation | Toxic to development | Mouse | NOAEL 1.3 mg/l | during organogenesis |
| Benzene | Inhalation | Not classified for female reproduction | Rat | NOAEL 0.96 mg/l | premating into lactation |
| Benzene | Inhalation | Not classified for development | Rat | NOAEL 0.032 mg/l | during organogenesis |
| Benzene | Ingestion | Toxic to male reproduction | Rat | LOAEL 50 mg/kg/day | 90 days |

## Target Organ(s)

## Specific Target Organ Toxicity - single exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|---|---|---|---|---|---|---|
| Naphtha (petroleum), solvent-refined light | Inhalation | central nervous system depression | May cause drowsiness or dizziness | similar compounds | NOAEL not available | not available |
| Naphtha (petroleum), solvent-refined light | Ingestion | central nervous system depression | May cause drowsiness or dizziness | similar compounds | NOAEL not availavle | not available |
| 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 |
| 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 |
| 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 | similar health hazards | NOAEL Not available | |
| Heptane | Ingestion | central nervous | May cause drowsiness or | Human | NOAEL Not | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | system depression | dizziness | | available | |
| 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 |
| 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 | |
| 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 |
| 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 | |
| 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 | |
| Methyl Alcohol | Inhalation | blindness | Causes damage to organs | Human | NOAEL Not available | occupational exposure |
| Methyl Alcohol | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | not available |
| Methyl Alcohol | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL Not available | 6 hours |
| Methyl Alcohol | Ingestion | blindness | Causes damage to organs | Human | NOAEL Not available | poisoning and/or abuse |
| Methyl Alcohol | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | poisoning and/or abuse |
| Benzene | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human and animal | NOAEL Not Available | |
| Benzene | 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 |
|---|---|---|---|---|---|---|
| Naphtha (petroleum), solvent-refined light | Inhalation | peripheral nervous system | May cause damage to organs though prolonged or repeated exposure | similar compounds | NOAEL not available | not available |
| 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 \| endocrine system | Not classified | Rat | NOAEL 1.76 mg/l | 6 months |
| 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 |
| 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 | 13 weeks |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | mg/kg/day | |
| 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 |
| Heptane | Inhalation | nervous system | Not classified | Rat | NOAEL 6.15 mg/l | 30 weeks |
| Heptane | Inhalation | peripheral nervous system | Not classified | Rat | NOAEL 12.5 mg/l | 16 weeks |
| Heptane | Inhalation | hematopoietic system \| kidney and/or bladder | Not classified | Rat | NOAEL 12.2 mg/l | 26 weeks |
| 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 |
| 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/day | 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/day | 28 days |
| TOLUENE | Inhalation | auditory system \| nervous system \| eyes \| olfactory system | Causes damage to organs through 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, | Not classified | Mouse | NOAEL 1.1 | 8 weeks |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | and/or hair | | | mg/l | |
| 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 |
| 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 bladder | Not classified | Rabbit | NOAEL 2.7 mg/l | 10 weeks |
| 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 |
| 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 | auditory system | May cause damage to organs though prolonged or repeated exposure | Rat | LOAEL 0.9 mg/l | 13 weeks |
| 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 | 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 |
| Methyl Alcohol | Inhalation | liver | Not classified | Rat | NOAEL 6.55 mg/l | 4 weeks |
| Methyl Alcohol | Inhalation | respiratory system | Not classified | Rat | NOAEL 13.1 mg/l | 6 weeks |
| Methyl Alcohol | Ingestion | liver \| nervous system | Not classified | Rat | NOAEL 2,500 | 90 days |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | mg/kg/day | |
| Benzene | Inhalation | hematopoietic system | Causes damage to organs through prolonged or repeated exposure | Human and animal | NOAEL Not Available | |
| Benzene | Inhalation | heart \| endocrine system \| gastrointestinal tract \| bone, teeth, nails, and/or hair \| liver \| immune system \| muscles \| nervous system \| eyes \| kidney and/or bladder \| respiratory system | Not classified | Rat | NOAEL 0.96 mg/l | 90 days |
| Benzene | Ingestion | hematopoietic system | Causes damage to organs through prolonged or repeated exposure | Rat | LOAEL 25 mg/kg/day | 90 days |
| Benzene | Ingestion | heart \| endocrine system \| gastrointestinal tract \| bone, teeth, nails, and/or hair \| liver \| immune system \| nervous system \| kidney and/or bladder \| respiratory system | Not classified | Rat | NOAEL 600 mg/kg/day | 90 days |

**Aspiration Hazard**

| Name | Value |
|---|---|
| Naphtha (petroleum), solvent-refined light | Aspiration hazard |
| HEXANE | Aspiration hazard |
| Heptane | Aspiration hazard |
| 2-METHYLPENTANE | Aspiration hazard |
| 3-METHYLPENTANE | Aspiration hazard |
| TOLUENE | Aspiration hazard |
| CYCLOHEXANE | Aspiration hazard |
| Ethylbenzene | Aspiration hazard |
| Benzene | 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

## Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

## Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

# 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.

**EPA Hazardous Waste Number (RCRA):** D001 (Ignitable), D018 (Benzene), D035 (Methyl ethyl ketone)

# SECTION 14: Transport Information

For Transport Information, please visit http://3M.com/Transportinfo or call 1-800-364-3577 or 651-737-6501.

# SECTION 15: Regulatory information

## 15.1. US Federal Regulations

Contact 3M for more information.

**EPCRA 311/312 Hazard Classifications:**

| **Physical Hazards** |
|---|
| Flammable (gases, aerosols, liquids, or solids) |

| **Health Hazards** |
|---|
| Carcinogenicity |
| Reproductive toxicity |
| Respiratory or Skin Sensitization |
| Serious eye damage or eye irritation |
| Skin Corrosion or Irritation |
| Specific target organ toxicity (single or repeated exposure) |

**Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):**

| Ingredient | C.A.S. No | % by Wt |
|---|---|---|
| TOLUENE | 108-88-3 | Trade Secret 2 - 7 |
| CYCLOHEXANE | 110-82-7 | Trade Secret < 5 |
| HEXANE | 110-54-3 | Trade Secret 5 - 25 |
| HEXANE (Hexane) | 110-54-3 | Trade Secret 5 - 25 |
| Ethylbenzene | 100-41-4 | Trade Secret < 0.5 |

## 15.2. State Regulations

Contact 3M for more information.

## 15.3. Chemical Inventories

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.

Contact 3M for more information.

## 15.4. International Regulations

Contact 3M for more information.

**This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.**

## SECTION 16: Other information

**NFPA Hazard Classification**
**Health:** 2 **Flammability:** 3 **Instability:** 0 **Special Hazards:** None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

| | | | |
|---|---|---|---|
| **Document Group:** | 10-5095-4 | **Version Number:** | 41.02 |
| **Issue Date:** | 08/12/25 | **Supersedes Date:** | 01/09/24 |

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