# Safety Data Sheet

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## SECTION 1: Identification

**1.1. Product identifier**
3M™ Roll Coat Color 4868 Opaque Dark Green

**Product Identification Numbers**
42-0021-9106-4, 75-0301-4414-3
7010390161

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

**Recommended use**
Roll Coat

**1.3. Supplier's details**

| | |
|---|---|
| **MANUFACTURER:** | 3M |
| **DIVISION:** | Commercial Branding and Transportation 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 3.
Skin Corrosion/Irritation: Category 2.
Serious Eye Damage/Irritation: Category 1.
Skin Sensitizer: Category 1.
Carcinogenicity: Category 1B.
Reproductive Toxicity: Category 1B.
Specific Target Organ Toxicity (single exposure): Category 1.
Specific Target Organ Toxicity (repeated exposure): Category 1.
Specific Target Organ Toxicity (single exposure): Category 3.

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

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

**Pictograms**



**Hazard Statements**
Flammable liquid and vapor.

Causes skin irritation.
Causes serious eye damage.
May cause an allergic skin reaction.
May cause cancer.
May damage fertility or the unborn child.
May cause drowsiness or dizziness.
Causes damage to organs: sensory organs.

Causes damage to organs through prolonged or repeated exposure: nervous system.
May cause damage to organs through prolonged or repeated exposure: 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, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep container tightly closed.
Ground and bond container and receiving equipment.
Use explosion-proof electrical, ventilating and lighting equipment.
Use non-sparking tools.
Take action to prevent static discharges.
Do not breathe vapors.
Wash exposed skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves, eye protection, face protection, and if needed, respiratory protection (see SDS Section 8).

**Response:**
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
IF exposed or concerned: Immediately call a POISON CENTER or doctor.
Get medical attention if you feel unwell.
If skin irritation or rash occurs: Get medical attention.
Take off contaminated clothing and wash it before reuse.
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 cool.

Store locked up.

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

19% of the mixture consists of ingredients of unknown acute oral toxicity.
19% of the mixture consists of ingredients of unknown acute dermal toxicity.
33% of the mixture consists of ingredients of unknown acute inhalation toxicity.

## SECTION 3: Composition/information on ingredients

| Ingredient | C.A.S. No. | % by Wt |
|---|---|---|
| 1-Methoxy-2-propylacetate | 108-65-6 | 10 - 30 |
| Heavy aromatic solvent naphtha (petroleum) | 64742-94-5 | 7 - < 30 Trade Secret * |
| Propanol, 1(or 2)-(2-methoxymethylethoxy)-acetate | 88917-22-0 | 10 - 30 |
| Oligomer 17171 | Trade Secret* | 10 - 30 |
| Cyclohexanone | 108-94-1 | 7 - 13 Trade Secret * |
| Vinyl polymer (New Jersey Trade Secret Registry # 04499600-5238P) | Trade Secret* | 5 - 10 |
| Pigment green | Trade Secret* | 3 - 7 |
| Alkyl amine polymer (New Jersey Trade Secret Registry # 04499600-5252P) | Trade Secret* | 3 - 7 |
| Titanium dioxide | 13463-67-7 | 1 - 5 Trade Secret * |
| Xylene | 1330-20-7 | 1 - 5 Trade Secret * |
| Light aromatic solvent naphtha (petroleum) | 64742-95-6 | 1 - 5 Trade Secret * |
| Diethylene glycol butyl ether | 112-34-5 | 0.3 - 1.6 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 0.3 - 1.6 |
| Butyl alcohol | 71-36-3 | 0.5 - 1.5 Trade Secret * |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | 106276-80-6 | 0.1 - 1 |
| 2,3-Epoxypropyl neodecanoate | 26761-45-5 | 0.1 - 1 Trade Secret * |
| Ethylbenzene | 100-41-4 | 0.1 - 1 Trade Secret * |
| Diethylaminoethanol | 100-37-8 | < 0.5 |
| Napthalene | 91-20-3 | < 0.4 |
| Cumene | 98-82-8 | < 0.4 |
| (3',4'-Epoxycyclohexylmethyl) 3,4-epoxycyclohexanecarboxylate | 2386-87-0 | < 0.3 |
| Carbon black | 1333-86-4 | < 0.2 |
| Dibutyltin dilaurate | 77-58-7 | < 0.2 |
| Formaldehyde | 50-00-0 | < 0.07 |
| Benzo(a)pyrene | 50-32-8 | < 0.0007 |

*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 for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately 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). Serious damage to the eyes (corneal cloudiness, severe pain, tearing, ulcerations, and significantly impaired or loss of vision). Central nervous system depression (headache, dizziness, drowsiness, incoordination, nausea, slurred speech, giddiness, and unconsciousness). Target organ effects. See Section 11 for additional details. 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 |
|---|---|
| Hydrocarbons | During Combustion |
| Carbon monoxide | During Combustion |
| Carbon dioxide | During Combustion |
| Hydrogen Chloride | During Combustion |
| Oxides of Nitrogen | 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**
Use personal protective equipment based on the results of an exposure assessment. Refer to Section 8 for PPE recommendations. If anticipated exposure resulting from an accidental release exceeds the protective capabilities of the PPE listed in Section 8, or are unknown, select PPE that offers an appropriate level of protection. Consider the physical and chemical hazards of the material when doing so. Examples of PPE ensembles for emergency response could include wearing bunker gear for a release of flammable material; wearing chemical protective clothing if the spilled material is a corrosive, a sensitizer, a significant dermal irritant, or can be absorbed through the skin; or donning a positive pressure supplied-air respirator for chemicals with inhalation hazards. For information regarding physical and health hazards, refer to sections 2 and 11 of the SDS. Evacuate area. 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.

**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 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 |
|---|---|---|---|---|
| Diethylaminoethanol | 100-37-8 | ACGIH | TWA:2 ppm | Danger of cutaneous absorption |
| Diethylaminoethanol | 100-37-8 | OSHA | TWA:50 mg/m3(10 ppm) | SKIN |
| Ethylbenzene | 100-41-4 | ACGIH | TWA:20 ppm | A3: Confirmed animal carcin., Ototoxicant |
| Ethylbenzene | 100-41-4 | OSHA | TWA:435 mg/m3(100 ppm) | |
| 1-Methoxy-2-propylacetate | 108-65-6 | AIHA | TWA:50 ppm | |
| Cyclohexanone | 108-94-1 | ACGIH | TWA:20 ppm;STEL:50 ppm | A3: Confirmed animal carcin., Danger of cutaneous absorption |
| Cyclohexanone | 108-94-1 | OSHA | TWA:200 mg/m3(50 ppm) | |
| Diethylene glycol butyl ether | 112-34-5 | ACGIH | TWA(inhalable fraction and vapor):10 ppm | |

| | | | | |
|---|---|---|---|---|
| Xylene | 1330-20-7 | ACGIH | TWA:20 ppm | A4: Not class. as human carcin |
| Xylene | 1330-20-7 | OSHA | TWA:435 mg/m3(100 ppm) | |
| Carbon black | 1333-86-4 | ACGIH | TWA(inhalable fraction):3 mg/m3 | A3: Confirmed animal carcin. |
| Carbon black | 1333-86-4 | OSHA | TWA:3.5 mg/m3 | |
| Titanium dioxide | 13463-67-7 | ACGIH | TWA(Respirable nanoscale particles):0.2 mg/m3;TWA(Respirable finescale particles):2.5 mg/m3 | A3: Confirmed animal carcin. |
| Titanium dioxide | 13463-67-7 | OSHA | TWA(as total dust):15 mg/m3 | |
| Formaldehyde | 50-00-0 | ACGIH | TWA:0.1 ppm;STEL:0.3 ppm | A1: Confirmed human carcin., Dermal/Respiratory Sensitizer |
| Formaldehyde | 50-00-0 | OSHA | TWA:0.75 ppm;STEL:2 ppm | 29 CFR 1910.1048 |
| Benzo(a)pyrene | 50-32-8 | ACGIH | Limit value not established: | A2: Suspected human carcin., Cntrl all exposr-low as possib |
| Butyl alcohol | 71-36-3 | ACGIH | TWA:20 ppm | |
| Butyl alcohol | 71-36-3 | OSHA | TWA:300 mg/m3(100 ppm) | |
| TIN, ORGANIC COMPOUNDS, AS /SN/ | 77-58-7 | OSHA | TWA(as Sn):0.1 mg/m3 | |
| Tin, organic compounds, as Sn | 77-58-7 | ACGIH | TWA(as Sn):0.1 mg/m3;STEL(as Sn):0.2 mg/m3 | A4: Not class. as human carcin, Danger of cutaneous absorption |
| Napthalene | 91-20-3 | ACGIH | TWA:10 ppm | A3: Confirmed animal carcin., Danger of cutaneous absorption |
| Napthalene | 91-20-3 | OSHA | TWA:50 mg/m3(10 ppm) | |
| 1,2,4-Trimethylbenzene | 95-63-6 | ACGIH | TWA:10 ppm | A4: Not class. as human carcin |
| Cumene | 98-82-8 | ACGIH | TWA:5 ppm | A3: Confirmed animal carcin. |
| Cumene | 98-82-8 | OSHA | TWA:245 mg/m3(50 ppm) | SKIN |

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

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 |
| **Specific Physical Form:** | Liquid |
| **Color** | Dark Green |
| **Odor** | Aromatic Solvent |
| **Odor threshold** | *No Data Available* |
| **pH** | *Not Applicable* |
| **Melting point** | *Not Applicable* |
| **Boiling Point** | >=243 ºF |
| **Flash Point** | 105 ºF [*Test Method:*Tagliabue Closed Cup] |
| **Evaporation rate** | >=0.23 [*Ref Std:*BUOAC=1] |
| **Flammability** | Flammable Liquid: Category 3. |
| **Flammable Limits(LEL)** | 0.9 % |
| **Flammable Limits(UEL)** | 11.7 % |
| **Vapor Pressure** | <=5.1 mmHg [@ 68 ºF] |
| **Relative Vapor Density** | 2.6 - 4.8 [*Ref Std:*AIR=1] |
| **Density** | 0.81 - 0.96 g/ml [@ 20 ºC] |
| **Relative Density** | 0.81 - 0.96 [*Ref Std:*WATER=1] |
| **Solubility in Water** | Negligible |
| **Solubility- non-water** | *No Data Available* |
| **Partition coefficient: n-octanol/ water** | *No Data Available* |
| **Autoignition temperature** | 670 - 870 ºF |
| **Decomposition temperature** | *No Data Available* |
| **Kinematic Viscosity** | 1,145 mm2/sec |
| **Volatile Organic Compounds** | 600 - 700 g/l |
| **Percent volatile** | 50 - 65 % weight |

**Particle Characteristics** *Not Applicable*

## SECTION 10: Stability and reactivity

**10.1. Reactivity**
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

**10.2. Chemical stability**
Stable.

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

**10.4. Conditions to avoid**
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:**
May be harmful if inhaled. 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:**
May be harmful in contact with skin. 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:**
Corrosive (Eye Burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of 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:**
Auditory Effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears. 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:**
Auditory Effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears. 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 |
|---|---|---|---|
| Benzo[a]pyrene | 50-32-8 | Grp. 1: Carcinogenic to humans | International Agency for Research on Cancer |
| Benzo[a]pyrene | 50-32-8 | Anticipated human carcinogen | National Toxicology Program Carcinogens |
| Carbon black | 1333-86-4 | Grp. 2B: Possible human carc. | International Agency for Research on Cancer |
| Cumene | 98-82-8 | Grp. 2B: Possible human carc. | International Agency for Research on Cancer |
| Cumene | 98-82-8 | Anticipated human carcinogen | National Toxicology Program Carcinogens |
| Ethylbenzene | 100-41-4 | Grp. 2B: Possible human carc. | International Agency for Research on Cancer |
| Formaldehyde | 50-00-0 | Known To Be Human Carcinogen. | National Toxicology Program Carcinogens |
| Formaldehyde | 50-00-0 | Grp. 1: Carcinogenic to humans | International Agency for Research on Cancer |
| FORMALDEHYDE | 50-00-0 | Cancer hazard | OSHA Carcinogens |
| Naphthalene | 91-20-3 | Grp. 2B: Possible human carc. | International Agency for Research on Cancer |
| Naphthalene | 91-20-3 | Anticipated human carcinogen | National Toxicology Program Carcinogens |
| Titanium dioxide | 13463-67-7 | 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 >2,000 - =5,000 mg/kg |
| Overall product | Inhalation-Vapor(4 hr) | | No data available; calculated ATE >20 - =50 mg/l |
| Overall product | Ingestion | | No data available; calculated ATE >5,000 mg/kg |
| Heavy aromatic solvent naphtha (petroleum) | Inhalation-Vapor | Professional judgement | LC50 estimated to be 20 - 50 mg/l |
| Heavy aromatic solvent naphtha (petroleum) | Dermal | Rabbit | LD50 > 2,000 mg/kg |
| Heavy aromatic solvent naphtha (petroleum) | Ingestion | Rat | LD50 > 5,000 mg/kg |
| Propanol, 1(or 2)-(2-methoxymethylethoxy)-acetate | Dermal | Rat | LD50 > 2,000 mg/kg |
| Propanol, 1(or 2)-(2-methoxymethylethoxy)-acetate | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 5.7 mg/l |
| Propanol, 1(or 2)-(2-methoxymethylethoxy)-acetate | Ingestion | Rat | LD50 > 5,000 mg/kg |
| 1-Methoxy-2-propylacetate | Dermal | Rabbit | LD50 > 5,000 mg/kg |
| 1-Methoxy-2-propylacetate | Inhalation-Vapor (4 hours) | Rat | LC50 > 28.8 mg/l |

| | | | |
|---|---|---|---|
| 1-Methoxy-2-propylacetate | Ingestion | Rat | LD50 8,532 mg/kg |
| Cyclohexanone | Dermal | Rabbit | LD50 >794, <3160 mg/kg |
| Cyclohexanone | Inhalation-Vapor (4 hours) | Rat | LC50 > 6.2 mg/l |
| Cyclohexanone | Ingestion | Rat | LD50 1,296 mg/kg |
| Vinyl polymer (New Jersey Trade Secret Registry # 04499600-5238P) | Dermal | Rabbit | LD50 > 8,000 mg/kg |
| Vinyl polymer (New Jersey Trade Secret Registry # 04499600-5238P) | Ingestion | Rat | LD50 > 8,000 mg/kg |
| Alkyl amine polymer (New Jersey Trade Secret Registry # 04499600-5252P) | Dermal | Rabbit | LD50 10,960 mg/kg |
| Alkyl amine polymer (New Jersey Trade Secret Registry # 04499600-5252P) | Ingestion | Rat | LD50 13,480 mg/kg |
| Titanium dioxide | Dermal | Rabbit | LD50 > 10,000 mg/kg |
| Titanium dioxide | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 6.82 mg/l |
| Titanium dioxide | Ingestion | Rat | LD50 > 10,000 mg/kg |
| Light aromatic solvent naphtha (petroleum) | Dermal | Rabbit | LD50 > 3,160 mg/kg |
| Light aromatic solvent naphtha (petroleum) | Inhalation-Vapor (4 hours) | Rat | LC50 > 6.2 mg/l |
| Light aromatic solvent naphtha (petroleum) | Ingestion | Rat | LD50 3,492 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 |
| Diethylene glycol butyl ether | Dermal | Rabbit | LD50 2,764 mg/kg |
| Diethylene glycol butyl ether | Ingestion | Rat | LD50 7,292 mg/kg |
| 1,2,4-Trimethylbenzene | Dermal | Rabbit | LD50 > 3,160 mg/kg |
| 1,2,4-Trimethylbenzene | Inhalation-Vapor (4 hours) | Rat | LC50 18 mg/l |
| 1,2,4-Trimethylbenzene | Ingestion | Rat | LD50 3,400 mg/kg |
| Butyl alcohol | Dermal | Rabbit | LD50 3,402 mg/kg |
| Butyl alcohol | Inhalation-Vapor (4 hours) | Rat | LC50 24 mg/l |
| Butyl alcohol | Ingestion | Rat | LD50 2,290 mg/kg |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 1.04 mg/l |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | Ingestion | Rat | LD50 > 5,000 mg/kg |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | Dermal | similar compounds | LD50 > 2,500 mg/kg |
| Diethylaminoethanol | Dermal | Rabbit | LD50 880 mg/kg |
| Diethylaminoethanol | Inhalation-Vapor (4 hours) | Rat | LC50 4.5 mg/l |
| Diethylaminoethanol | Ingestion | Rat | LD50 1,300 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 |
| 2,3-Epoxypropyl neodecanoate | Dermal | Rat | LD50 > 2,000 mg/kg |
| 2,3-Epoxypropyl neodecanoate | Ingestion | Rat | LD50 > 2,000 mg/kg |
| Cumene | Dermal | Rabbit | LD50 > 3,160 mg/kg |
| Cumene | Inhalation-Vapor (4 hours) | Rat | LC50 39.4 mg/l |
| Cumene | Ingestion | Rat | LD50 2,260 mg/kg |

| | | | |
|---|---|---|---|
| Napthalene | Dermal | Human | LD50 estimated to be 2,000 - 5,000 mg/kg |
| Napthalene | Inhalation-Vapor | Human | LC50 estimated to be 20 - 50 mg/l |
| Napthalene | Ingestion | Human | LD50 estimated to be 300 - 2,000 mg/kg |
| (3',4'-Epoxycyclohexylmethyl) 3,4-epoxycyclohexanecarboxylate | Dermal | Rat | LD50 > 2,000 mg/kg |
| (3',4'-Epoxycyclohexylmethyl) 3,4-epoxycyclohexanecarboxylate | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 5.19 mg/l |
| (3',4'-Epoxycyclohexylmethyl) 3,4-epoxycyclohexanecarboxylate | Ingestion | Rat | LD50 5,000 mg/kg |
| Carbon black | Dermal | Rabbit | LD50 > 3,000 mg/kg |
| Carbon black | Ingestion | Rat | LD50 > 8,000 mg/kg |
| Dibutyltin dilaurate | Dermal | Rat | LD50 > 2,000 mg/kg |
| Dibutyltin dilaurate | Ingestion | Rat | LD50 1,290 mg/kg |
| Formaldehyde | Dermal | Rabbit | LD50 270 mg/kg |
| Formaldehyde | Inhalation-Gas (4 hours) | Rat | LC50 479 ppm |
| Formaldehyde | Ingestion | Rat | LD50 640 mg/kg |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name | Species | Value |
|---|---|---|
| Heavy aromatic solvent naphtha (petroleum) | Rabbit | Minimal irritation |
| Propanol, 1(or 2)-(2-methoxymethylethoxy)-acetate | Rabbit | No significant irritation |
| 1-Methoxy-2-propylacetate | Rabbit | No significant irritation |
| Cyclohexanone | Rabbit | Irritant |
| Vinyl polymer (New Jersey Trade Secret Registry # 04499600-5238P) | Professional judgement | No significant irritation |
| Alkyl amine polymer (New Jersey Trade Secret Registry # 04499600-5252P) | Rabbit | Mild irritant |
| Titanium dioxide | Rabbit | No significant irritation |
| Light aromatic solvent naphtha (petroleum) | Rabbit | Mild irritant |
| Xylene | Rabbit | Mild irritant |
| Diethylene glycol butyl ether | Rabbit | Minimal irritation |
| 1,2,4-Trimethylbenzene | Rabbit | Irritant |
| Butyl alcohol | Rabbit | Mild irritant |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | In vitro data | No significant irritation |
| Diethylaminoethanol | Rabbit | Corrosive |
| Ethylbenzene | Rabbit | Mild irritant |
| 2,3-Epoxypropyl neodecanoate | Rabbit | No significant irritation |
| Cumene | Rabbit | Minimal irritation |
| Napthalene | Rabbit | Minimal irritation |
| (3',4'-Epoxycyclohexylmethyl) 3,4-epoxycyclohexanecarboxylate | Rabbit | Minimal irritation |
| Carbon black | Rabbit | No significant irritation |
| Dibutyltin dilaurate | Rabbit | Corrosive |
| Formaldehyde | official classification | Corrosive |

**Serious Eye Damage/Irritation**

| Name | Species | Value |
|---|---|---|
| Heavy aromatic solvent naphtha (petroleum) | Rabbit | Mild irritant |
| Propanol, 1(or 2)-(2-methoxymethylethoxy)-acetate | Rabbit | No significant irritation |
| 1-Methoxy-2-propylacetate | Rabbit | Mild irritant |
| Cyclohexanone | In vitro data | Corrosive |
| Vinyl polymer (New Jersey Trade Secret Registry # 04499600-5238P) | Professional judgement | No significant irritation |

| | | |
|---|---|---|
| Alkyl amine polymer (New Jersey Trade Secret Registry # 04499600-5252P) | Rabbit | No significant irritation |
| Titanium dioxide | Rabbit | No significant irritation |
| Light aromatic solvent naphtha (petroleum) | Rabbit | Mild irritant |
| Xylene | Rabbit | Mild irritant |
| Diethylene glycol butyl ether | Rabbit | Corrosive |
| 1,2,4-Trimethylbenzene | Rabbit | Mild irritant |
| Butyl alcohol | Rabbit | Severe irritant |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | In vitro data | No significant irritation |
| Diethylaminoethanol | Rabbit | Corrosive |
| Ethylbenzene | Rabbit | Moderate irritant |
| 2,3-Epoxypropyl neodecanoate | Rabbit | No significant irritation |
| Cumene | Rabbit | Mild irritant |
| Napthalene | Rabbit | No significant irritation |
| (3',4'-Epoxycyclohexylmethyl) 3,4-epoxycyclohexanecarboxylate | Rabbit | Mild irritant |
| Carbon black | Rabbit | No significant irritation |
| Dibutyltin dilaurate | Rabbit | Corrosive |
| Formaldehyde | official classification | Corrosive |

## Skin Sensitization

| Name | Species | Value |
|---|---|---|
| Heavy aromatic solvent naphtha (petroleum) | Guinea pig | Not classified |
| Propanol, 1(or 2)-(2-methoxymethylethoxy)-acetate | Guinea pig | Not classified |
| 1-Methoxy-2-propylacetate | Guinea pig | Not classified |
| Cyclohexanone | Guinea pig | Not classified |
| Titanium dioxide | Human and animal | Not classified |
| Light aromatic solvent naphtha (petroleum) | Guinea pig | Not classified |
| 1,2,4-Trimethylbenzene | Guinea pig | Not classified |
| Butyl alcohol | Human | Not classified |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | Human | Not classified |
| Diethylaminoethanol | Guinea pig | Not classified |
| Ethylbenzene | Human | Not classified |
| 2,3-Epoxypropyl neodecanoate | Guinea pig | Sensitizing |
| Cumene | Guinea pig | Not classified |
| (3',4'-Epoxycyclohexylmethyl) 3,4-epoxycyclohexanecarboxylate | Guinea pig | Sensitizing |
| Dibutyltin dilaurate | Guinea pig | Sensitizing |
| Formaldehyde | Guinea pig | Sensitizing |
| Benzo(a)pyrene | Mouse | Sensitizing |

## Respiratory Sensitization

| Name | Species | Value |
|---|---|---|
| Formaldehyde | Human | Some positive data exist, but the data are not sufficient for classification |

## Germ Cell Mutagenicity

| Name | Route | Value |
|---|---|---|

| | | |
|---|---|---|
| Heavy aromatic solvent naphtha (petroleum) | In Vitro | Not mutagenic |
| Heavy aromatic solvent naphtha (petroleum) | In vivo | Not mutagenic |
| Propanol, 1(or 2)-(2-methoxymethylethoxy)-acetate | In Vitro | Not mutagenic |
| Propanol, 1(or 2)-(2-methoxymethylethoxy)-acetate | In vivo | Not mutagenic |
| 1-Methoxy-2-propylacetate | In Vitro | Not mutagenic |
| Cyclohexanone | In Vitro | Not mutagenic |
| Cyclohexanone | In vivo | Not mutagenic |
| Titanium dioxide | In Vitro | Not mutagenic |
| Titanium dioxide | In vivo | Not mutagenic |
| Light aromatic solvent naphtha (petroleum) | In Vitro | Not mutagenic |
| Xylene | In Vitro | Not mutagenic |
| Xylene | In vivo | Not mutagenic |
| 1,2,4-Trimethylbenzene | In Vitro | Not mutagenic |
| Butyl alcohol | In vivo | Not mutagenic |
| Butyl alcohol | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | In Vitro | Not mutagenic |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | In vivo | Not mutagenic |
| Diethylaminoethanol | In Vitro | Not mutagenic |
| Diethylaminoethanol | In vivo | Not mutagenic |
| Ethylbenzene | In vivo | Not mutagenic |
| Ethylbenzene | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| 2,3-Epoxypropyl neodecanoate | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| 2,3-Epoxypropyl neodecanoate | In vivo | Mutagenic |
| Cumene | In Vitro | Not mutagenic |
| Cumene | In vivo | Not mutagenic |
| (3',4'-Epoxycyclohexylmethyl) 3,4-epoxycyclohexanecarboxylate | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| (3',4'-Epoxycyclohexylmethyl) 3,4-epoxycyclohexanecarboxylate | In vivo | Some positive data exist, but the data are not sufficient for classification |
| Carbon black | In Vitro | Not mutagenic |
| Carbon black | In vivo | Some positive data exist, but the data are not sufficient for classification |
| Dibutyltin dilaurate | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Dibutyltin dilaurate | In vivo | Mutagenic |
| Formaldehyde | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Formaldehyde | In vivo | Mutagenic |
| Benzo(a)pyrene | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Benzo(a)pyrene | In vivo | Mutagenic |

## Carcinogenicity

| Name | Route | Species | Value |
|---|---|---|---|
| Cyclohexanone | Ingestion | Multiple animal species | Some positive data exist, but the data are not sufficient for classification |
| Titanium dioxide | Ingestion | Multiple animal species | Not carcinogenic |
| Titanium dioxide | Inhalation | Rat | Carcinogenic |
| 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 |
| Ethylbenzene | Inhalation | Multiple animal | Carcinogenic |

| | | | |
|---|---|---|---|
| | | species | |
| Cumene | Inhalation | Multiple animal species | Carcinogenic |
| Napthalene | Inhalation | Multiple animal species | Carcinogenic |
| (3',4'-Epoxycyclohexylmethyl) 3,4-epoxycyclohexanecarboxylate | Dermal | Mouse | Not carcinogenic |
| Carbon black | Dermal | Mouse | Not carcinogenic |
| Carbon black | Ingestion | Mouse | Not carcinogenic |
| Carbon black | Inhalation | Rat | Carcinogenic |
| Formaldehyde | Not Specified | Human and animal | Carcinogenic |
| Benzo(a)pyrene | Dermal | Human and animal | Carcinogenic |
| Benzo(a)pyrene | Ingestion | Human and animal | Carcinogenic |
| Benzo(a)pyrene | Inhalation | Human and animal | Carcinogenic |

## Reproductive Toxicity

## Reproductive and/or Developmental Effects

| Name | Route | Value | Species | Test Result | Exposure Duration |
|---|---|---|---|---|---|
| Heavy aromatic solvent naphtha (petroleum) | Not Specified | Not classified for female reproduction | Rat | NOAEL Not available | 2 generation |
| Heavy aromatic solvent naphtha (petroleum) | Not Specified | Not classified for male reproduction | Rat | NOAEL Not available | 2 generation |
| Heavy aromatic solvent naphtha (petroleum) | Not Specified | Not classified for development | Rat | NOAEL Not available | 2 generation |
| 1-Methoxy-2-propylacetate | Ingestion | Not classified for female reproduction | Rat | NOAEL 1,000 mg/kg/day | premating & during gestation |
| 1-Methoxy-2-propylacetate | Ingestion | Not classified for male reproduction | Rat | NOAEL 1,000 mg/kg/day | premating & during gestation |
| 1-Methoxy-2-propylacetate | Ingestion | Not classified for development | Rat | NOAEL 1,000 mg/kg/day | premating & during gestation |
| 1-Methoxy-2-propylacetate | Inhalation | Not classified for development | Rat | NOAEL 21.6 mg/l | during organogenesis |
| Cyclohexanone | Inhalation | Not classified for female reproduction | Rat | NOAEL 4 mg/l | 2 generation |
| Cyclohexanone | Ingestion | Not classified for development | Rabbit | NOAEL 500 mg/kg/day | during gestation |
| Cyclohexanone | Inhalation | Not classified for male reproduction | Rat | NOAEL 2 mg/l | 2 generation |
| Cyclohexanone | Inhalation | Not classified for development | Rat | NOAEL 2.6 mg/l | during gestation |
| Light aromatic solvent naphtha (petroleum) | Not Specified | Not classified for female reproduction | Rat | NOAEL Not available | 2 generation |
| Light aromatic solvent naphtha (petroleum) | Not Specified | Not classified for male reproduction | Rat | NOAEL Not available | 2 generation |
| Light aromatic solvent naphtha (petroleum) | Not Specified | Not classified for development | Rat | NOAEL Not available | 2 generation |
| 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 |
| 1,2,4-Trimethylbenzene | Inhalation | Not classified for female reproduction | Rat | NOAEL 1.2 mg/l | 3 months |
| 1,2,4-Trimethylbenzene | Inhalation | Not classified for male reproduction | Rat | NOAEL 1.2 mg/l | 3 months |
| 1,2,4-Trimethylbenzene | Inhalation | Not classified for development | Rat | NOAEL 1.5 mg/l | during gestation |
| Butyl alcohol | Ingestion | Not classified for female reproduction | Rat | NOAEL 5,000 mg/kg/day | premating & during gestation |
| Butyl alcohol | Inhalation | Not classified for male reproduction | Rat | NOAEL 18 mg/l | 6 weeks |
| Butyl alcohol | Inhalation | Not classified for development | Rat | NOAEL 10.6 mg/l | during gestation |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | Ingestion | Not classified for female reproduction | Rat | NOAEL 1,000 mg/kg/day | premating into lactation |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | Ingestion | Not classified for male reproduction | Rat | NOAEL 1,000 mg/kg/day | 29 days |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | Ingestion | Not classified for development | Rat | NOAEL 1,000 mg/kg/day | premating into lactation |
| Diethylaminoethanol | Inhalation | Not classified for development | Rat | NOAEL 0.49 mg/l | during organogenesis |
| Diethylaminoethanol | Ingestion | Not classified for male reproduction | Rat | LOAEL 11 mg/kg/day | 2 years |
| Diethylaminoethanol | Ingestion | Not classified for development | Rat | NOAEL 100 mg/kg/day | during gestation |
| Ethylbenzene | Inhalation | Not classified for development | Rat | NOAEL 4.3 mg/l | premating & during gestation |
| 2,3-Epoxypropyl neodecanoate | Ingestion | Not classified for female reproduction | Rat | NOAEL 300 mg/kg/day | 2 generation |
| 2,3-Epoxypropyl neodecanoate | Ingestion | Not classified for male reproduction | Rat | NOAEL 300 mg/kg/day | 2 generation |
| 2,3-Epoxypropyl neodecanoate | Ingestion | Toxic to development | Rat | NOAEL 50 mg/kg/day | 2 generation |
| Cumene | Inhalation | Not classified for development | Rabbit | NOAEL 11.3 mg/l | during organogenesis |
| (3',4'-Epoxycyclohexylmethyl) 3,4-epoxycyclohexanecarboxylate | Ingestion | Not classified for development | Rat | NOAEL 125 mg/kg/day | during gestation |
| Dibutyltin dilaurate | Ingestion | Toxic to female reproduction | Rat | NOAEL 2 mg/kg/day | premating into lactation |
| Dibutyltin dilaurate | Ingestion | Toxic to development | Rat | NOAEL 2.5 mg/kg/day | during gestation |
| Formaldehyde | Ingestion | Not classified for male reproduction | Rat | NOAEL 100 mg/kg | not applicable |
| Formaldehyde | Inhalation | Not classified for development | Rat | NOAEL 10 ppm | during gestation |
| Benzo(a)pyrene | Ingestion | Toxic to female reproduction | Human and animal | NOAEL Not Available | |
| Benzo(a)pyrene | Inhalation | Toxic to female reproduction | Human and animal | NOAEL Not Available | |
| Benzo(a)pyrene | Ingestion | Toxic to male reproduction | Human and animal | NOAEL Not Available | |
| Benzo(a)pyrene | Inhalation | Toxic to male reproduction | Human and animal | NOAEL Not Available | |
| Benzo(a)pyrene | Ingestion | Toxic to development | Human | NOAEL Not | |

| | | | | | |
|---|---|---|---|---|---|
| | | | and animal | Available | |
| Benzo(a)pyrene | Inhalation | Toxic to development | Human and animal | NOAEL Not Available | |

## 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 |
|---|---|---|---|---|---|---|
| Heavy aromatic solvent naphtha (petroleum) | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human and animal | NOAEL Not available | |
| 1-Methoxy-2-propylacetate | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | | NOAEL Not available | |
| 1-Methoxy-2-propylacetate | Ingestion | central nervous system depression | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL not available | |
| Cyclohexanone | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Guinea pig | LOAEL 16.1 mg/l | 6 hours |
| Cyclohexanone | Inhalation | respiratory irritation | May cause respiratory irritation | Human | NOAEL Not available | |
| Cyclohexanone | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Professional judgement | NOAEL Not available | |
| Alkyl amine polymer (New Jersey Trade Secret Registry # 04499600-5252P) | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | similar health hazards | NOAEL Not available | |
| Light aromatic solvent naphtha (petroleum) | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human and animal | NOAEL Not available | |
| Light aromatic solvent naphtha (petroleum) | Inhalation | respiratory irritation | May cause respiratory irritation | | 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 |
| 1,2,4-Trimethylbenzene | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human and animal | NOAEL Not available | |
| 1,2,4-Trimethylbenzene | Inhalation | respiratory irritation | May cause respiratory irritation | official classification | NOAEL Not available | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1,2,4-Trimethylbenzene | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Professional judgement | NOAEL Not available | |
| Butyl alcohol | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| Butyl alcohol | Inhalation | respiratory irritation | May cause respiratory irritation | official classification | NOAEL Not available | |
| Butyl alcohol | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| Diethylaminoethanol | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| Diethylaminoethanol | Inhalation | respiratory irritation | May cause respiratory irritation | Rat | NOAEL 0.05 mg/l | 14 weeks |
| 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 | |
| Cumene | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Multiple animal species | NOAEL Not available | not available |
| Cumene | Inhalation | respiratory irritation | May cause respiratory irritation | Human | LOAEL 0.2 mg/l | occupational exposure |
| Cumene | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Multiple animal species | NOAEL Not available | not available |
| Napthalene | Ingestion | blood | Causes damage to organs | Human | NOAEL Not available | poisoning and/or abuse |
| Dibutyltin dilaurate | Ingestion | immune system | Causes damage to organs | Rat | LOAEL 5 mg/kg | |
| Formaldehyde | Inhalation | respiratory system | Causes damage to organs | Rat | LOAEL 128 ppm | 6 hours |
| Formaldehyde | Inhalation | respiratory irritation | May cause respiratory irritation | Human | NOAEL Not available | |

## Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|---|---|---|---|---|---|---|
| Propanol, 1(or 2)-(2-methoxymethylethoxy)-acetate | Ingestion | liver | Not classified | Rat | NOAEL 1,000 mg/kg/day | 4 weeks |
| Propanol, 1(or 2)-(2-methoxymethylethoxy)-acetate | Ingestion | heart | Not classified | Rat | NOAEL 1,000 mg/kg/day | 4 weeks |
| Propanol, 1(or 2)-(2-methoxymethylethoxy)-acetate | Ingestion | endocrine system | Not classified | Rat | NOAEL 1,000 mg/kg/day | 4 weeks |
| Propanol, 1(or 2)-(2-methoxymethylethoxy)-acetate | Ingestion | hematopoietic system | Not classified | Rat | NOAEL 1,000 mg/kg/day | 4 weeks |
| Propanol, 1(or 2)-(2-methoxymethylethoxy)-acetate | Ingestion | kidney and/or bladder | Not classified | Rat | NOAEL 1,000 mg/kg/day | 4 weeks |
| 1-Methoxy-2-propylacetate | Inhalation | kidney and/or bladder | Not classified | Rat | NOAEL 16.2 mg/l | 9 days |
| 1-Methoxy-2-propylacetate | Inhalation | olfactory system | Not classified | Mouse | LOAEL 1.62 mg/l | 9 days |
| 1-Methoxy-2-propylacetate | Inhalation | blood | Not classified | Multiple animal species | NOAEL 16.2 mg/l | 9 days |
| 1-Methoxy-2-propylacetate | Ingestion | endocrine system | Not classified | Rat | NOAEL 1,000 mg/kg/day | 44 days |
| Cyclohexanone | Inhalation | liver | Not classified | Rat | NOAEL 2.5 mg/l | 13 weeks |

| | | | | | | |
|---|---|---|---|---|---|---|
| Cyclohexanone | Inhalation | kidney and/or bladder | Not classified | Rat | NOAEL 2.5 mg/l | 13 weeks |
| Cyclohexanone | Inhalation | heart | Not classified | Rat | NOAEL 2.5 mg/l | 13 weeks |
| Cyclohexanone | Inhalation | skin | Not classified | Rat | NOAEL 2.5 mg/l | 13 weeks |
| Cyclohexanone | Inhalation | endocrine system | Not classified | Rat | NOAEL 2.5 mg/l | 13 weeks |
| Cyclohexanone | Inhalation | gastrointestinal tract | Not classified | Rat | NOAEL 2.5 mg/l | 13 weeks |
| Cyclohexanone | Inhalation | bone, teeth, nails, and/or hair | Not classified | Rat | NOAEL 2.5 mg/l | 13 weeks |
| Cyclohexanone | Inhalation | hematopoietic system | Not classified | Rat | NOAEL 2.5 mg/l | 13 weeks |
| Cyclohexanone | Inhalation | immune system | Not classified | Rat | NOAEL 2.5 mg/l | 13 weeks |
| Cyclohexanone | Inhalation | muscles | Not classified | Rat | NOAEL 2.5 mg/l | 13 weeks |
| Cyclohexanone | Inhalation | nervous system | Not classified | Rat | NOAEL 2.5 mg/l | 13 weeks |
| Cyclohexanone | Inhalation | eyes | Not classified | Rat | NOAEL 2.5 mg/l | 13 weeks |
| Cyclohexanone | Inhalation | respiratory system | Not classified | Rat | NOAEL 2.5 mg/l | 13 weeks |
| Cyclohexanone | Inhalation | vascular system | Not classified | Rat | NOAEL 2.5 mg/l | 13 weeks |
| Cyclohexanone | Ingestion | hematopoietic system | Not classified | Rat | NOAEL 407 mg/kg/day | 3 months |
| Cyclohexanone | Ingestion | eyes | Not classified | Rat | NOAEL 407 mg/kg/day | 3 months |
| Cyclohexanone | Ingestion | kidney and/or bladder | Not classified | Rat | NOAEL 407 mg/kg/day | 3 months |
| Titanium dioxide | Inhalation | respiratory system | Some positive data exist, but the data are not sufficient for classification | Rat | LOAEL 0.01 mg/l | 2 years |
| Titanium dioxide | Inhalation | pulmonary fibrosis | Not classified | Human | NOAEL Not available | occupational exposure |
| 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 though prolonged or repeated exposure | Rat | LOAEL 7.8 mg/l | 5 days |
| Xylene | Inhalation | liver | Not classified | Multiple animal species | NOAEL Not available | |
| Xylene | Inhalation | heart | Not classified | Multiple animal species | NOAEL 3.5 mg/l | 13 weeks |
| Xylene | Inhalation | endocrine system | Not classified | Multiple animal species | NOAEL 3.5 mg/l | 13 weeks |
| Xylene | Inhalation | gastrointestinal tract | Not classified | Multiple animal species | NOAEL 3.5 mg/l | 13 weeks |
| Xylene | Inhalation | hematopoietic system | Not classified | Multiple animal species | NOAEL 3.5 mg/l | 13 weeks |
| Xylene | Inhalation | muscles | Not classified | Multiple animal species | NOAEL 3.5 mg/l | 13 weeks |
| Xylene | Inhalation | kidney and/or bladder | Not classified | Multiple animal species | NOAEL 3.5 mg/l | 13 weeks |
| Xylene | Inhalation | respiratory system | Not classified | Multiple animal species | NOAEL 3.5 mg/l | 13 weeks |
| Xylene | Ingestion | auditory system | Not classified | Rat | NOAEL 900 | 2 weeks |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | mg/kg/day | |
| 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 | Not classified | Mouse | NOAEL 1,000 mg/kg/day | 103 weeks |
| Xylene | Ingestion | skin | Not classified | Mouse | NOAEL 1,000 mg/kg/day | 103 weeks |
| Xylene | Ingestion | endocrine system | Not classified | Mouse | NOAEL 1,000 mg/kg/day | 103 weeks |
| Xylene | Ingestion | bone, teeth, nails, and/or hair | Not classified | Mouse | NOAEL 1,000 mg/kg/day | 103 weeks |
| Xylene | Ingestion | hematopoietic system | Not classified | Mouse | NOAEL 1,000 mg/kg/day | 103 weeks |
| Xylene | Ingestion | immune system | Not classified | Mouse | NOAEL 1,000 mg/kg/day | 103 weeks |
| Xylene | Ingestion | nervous system | Not classified | Mouse | NOAEL 1,000 mg/kg/day | 103 weeks |
| Xylene | Ingestion | respiratory system | Not classified | Mouse | NOAEL 1,000 mg/kg/day | 103 weeks |
| 1,2,4-Trimethylbenzene | Inhalation | hematopoietic system | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 0.5 mg/l | 3 months |
| 1,2,4-Trimethylbenzene | Inhalation | nervous system | Some positive data exist, but the data are not sufficient for classification | Rat | LOAEL 0.1 mg/l | 3 months |
| 1,2,4-Trimethylbenzene | Inhalation | respiratory system | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | occupational exposure |
| 1,2,4-Trimethylbenzene | Inhalation | liver | Not classified | Rat | NOAEL 1.2 mg/l | 3 months |
| 1,2,4-Trimethylbenzene | Inhalation | kidney and/or bladder | Not classified | Rat | NOAEL 1.2 mg/l | 3 months |
| 1,2,4-Trimethylbenzene | Inhalation | heart | Not classified | Rat | NOAEL 1.2 mg/l | 3 months |
| 1,2,4-Trimethylbenzene | Inhalation | endocrine system | Not classified | Rat | NOAEL 1.2 mg/l | 3 months |
| 1,2,4-Trimethylbenzene | Inhalation | gastrointestinal tract | Not classified | Rat | NOAEL 1.2 mg/l | 3 months |
| 1,2,4-Trimethylbenzene | Inhalation | immune system | Not classified | Rat | NOAEL 1.2 mg/l | 3 months |
| 1,2,4-Trimethylbenzene | Ingestion | hematopoietic system | Not classified | Rat | NOAEL 600 mg/kg/day | 14 days |
| 1,2,4-Trimethylbenzene | Ingestion | liver | Not classified | Rat | NOAEL 1,000 mg/kg/day | 28 days |
| 1,2,4-Trimethylbenzene | Ingestion | immune system | Not classified | Rat | NOAEL 1,000 mg/kg/day | 28 days |
| 1,2,4-Trimethylbenzene | Ingestion | kidney and/or bladder | Not classified | Rat | NOAEL 1,000 mg/kg/day | 28 days |
| Butyl alcohol | Inhalation | blood | Not classified | Rat | NOAEL 0.3 mg/l | 3 months |
| Butyl alcohol | Inhalation | auditory system | Not classified | Human | NOAEL Not available | occupational exposure |

| | | | | | | |
|---|---|---|---|---|---|---|
| Butyl alcohol | Inhalation | liver | Not classified | Guinea pig | NOAEL Not available | 3 months |
| Butyl alcohol | Inhalation | kidney and/or bladder | Not classified | Guinea pig | NOAEL Not available | 3 months |
| Butyl alcohol | Inhalation | respiratory system | Not classified | Guinea pig | NOAEL Not available | 3 months |
| Butyl alcohol | Inhalation | nervous system | Not classified | Rat | NOAEL 9.09 mg/l | 13 weeks |
| Butyl alcohol | Ingestion | blood | Not classified | Rat | NOAEL 500 mg/kg/day | 13 weeks |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | Inhalation | respiratory system | Not classified | Rat | NOAEL 0.01 mg/l | 5 days |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | Inhalation | heart | Not classified | Rat | NOAEL 0.03 mg/l | 5 days |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | Inhalation | endocrine system | Not classified | Rat | NOAEL 0.03 mg/l | 5 days |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | Inhalation | gastrointestinal tract | Not classified | Rat | NOAEL 0.03 mg/l | 5 days |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | Inhalation | hematopoietic system | Not classified | Rat | NOAEL 0.03 mg/l | 5 days |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | Inhalation | liver | Not classified | Rat | NOAEL 0.03 mg/l | 5 days |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | Inhalation | immune system | Not classified | Rat | NOAEL 0.03 mg/l | 5 days |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | Inhalation | nervous system | Not classified | Rat | NOAEL 0.03 mg/l | 5 days |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | Inhalation | eyes | Not classified | Rat | NOAEL 0.03 mg/l | 5 days |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p- | Inhalation | kidney and/or bladder | Not classified | Rat | NOAEL 0.03 mg/l | 5 days |

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| phenylenediamine and sodium methoxide | | | | | | |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | Ingestion | heart | Not classified | Rat | NOAEL 1,000 mg/kg/day | 28 days |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | Ingestion | endocrine system | Not classified | Rat | NOAEL 1,000 mg/kg/day | 28 days |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | Ingestion | gastrointestinal tract | Not classified | Rat | NOAEL 1,000 mg/kg/day | 28 days |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | Ingestion | hematopoietic system | Not classified | Rat | NOAEL 1,000 mg/kg/day | 28 days |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | Ingestion | liver | Not classified | Rat | NOAEL 1,000 mg/kg/day | 28 days |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | Ingestion | immune system | Not classified | Rat | NOAEL 1,000 mg/kg/day | 28 days |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | Ingestion | muscles | Not classified | Rat | NOAEL 1,000 mg/kg/day | 28 days |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | Ingestion | nervous system | Not classified | Rat | NOAEL 1,000 mg/kg/day | 28 days |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | Ingestion | eyes | Not classified | Rat | NOAEL 1,000 mg/kg/day | 28 days |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | Ingestion | kidney and/or bladder | Not classified | Rat | NOAEL 1,000 mg/kg/day | 28 days |
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | Ingestion | respiratory system | Not classified | Rat | NOAEL 1,000 mg/kg/day | 28 days |

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|---|---|---|---|---|---|---|
| Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with p-phenylenediamine and sodium methoxide | Ingestion | vascular system | Not classified | Rat | NOAEL 1,000 mg/kg/day | 28 days |
| Diethylaminoethanol | Inhalation | liver | Not classified | Rat | NOAEL 0.36 mg/l | 14 weeks |
| Diethylaminoethanol | Inhalation | kidney and/or bladder | Not classified | Rat | NOAEL 0.36 mg/l | 14 weeks |
| Diethylaminoethanol | Inhalation | heart | Not classified | Rat | NOAEL 0.36 mg/l | 14 weeks |
| Diethylaminoethanol | Inhalation | endocrine system | Not classified | Rat | NOAEL 0.36 mg/l | 14 weeks |
| Diethylaminoethanol | Inhalation | bone, teeth, nails, and/or hair | Not classified | Rat | NOAEL 0.36 mg/l | 14 weeks |
| Diethylaminoethanol | Inhalation | hematopoietic system | Not classified | Rat | NOAEL 0.36 mg/l | 14 weeks |
| Diethylaminoethanol | Inhalation | immune system | Not classified | Rat | NOAEL 0.36 mg/l | 14 weeks |
| Diethylaminoethanol | Inhalation | nervous system | Not classified | Rat | NOAEL 0.36 mg/l | 14 weeks |
| Diethylaminoethanol | Inhalation | respiratory system | Not classified | Rat | NOAEL 0.36 mg/l | 14 weeks |
| Diethylaminoethanol | Ingestion | nervous system | Some positive data exist, but the data are not sufficient for classification | Dog | NOAEL 20 mg/kg/day | 1 years |
| Diethylaminoethanol | Ingestion | kidney and/or bladder | Not classified | Rat | NOAEL 400 mg/kg/day | 6 months |
| Diethylaminoethanol | Ingestion | heart | Not classified | Rat | NOAEL 400 mg/kg/day | 2 years |
| Diethylaminoethanol | Ingestion | endocrine system | Not classified | Rat | NOAEL 400 mg/kg/day | 2 years |
| Diethylaminoethanol | Ingestion | hematopoietic system | Not classified | Rat | NOAEL 400 mg/kg/day | 2 years |
| Diethylaminoethanol | Ingestion | liver | Not classified | Rat | NOAEL 400 mg/kg/day | 2 years |
| Diethylaminoethanol | Ingestion | respiratory system | Not classified | Rat | NOAEL 400 mg/kg/day | 2 years |
| Diethylaminoethanol | Ocular | eyes | Not classified | Rat | NOAEL 0.36 mg/l | 14 weeks |
| 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 | Not classified | Multiple animal species | NOAEL 4.2 mg/l | 90 days |
| Ethylbenzene | Inhalation | muscles | Not classified | Multiple animal species | NOAEL 4.2 mg/l | 90 days |
| Ethylbenzene | Inhalation | heart | Not classified | Multiple animal species | NOAEL 3.3 mg/l | 2 years |
| Ethylbenzene | Inhalation | immune system | Not classified | Multiple animal | NOAEL 3.3 mg/l | 2 years |

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| | | | | species | | |
| Ethylbenzene | Inhalation | respiratory system | Not classified | Multiple animal species | NOAEL 3.3 mg/l | 2 years |
| Ethylbenzene | Ingestion | liver | Not classified | Rat | NOAEL 680 mg/kg/day | 6 months |
| Ethylbenzene | Ingestion | kidney and/or bladder | Not classified | Rat | NOAEL 680 mg/kg/day | 6 months |
| 2,3-Epoxypropyl neodecanoate | Ingestion | endocrine system | Not classified | Rat | NOAEL 1,000 mg/kg/day | 90 days |
| 2,3-Epoxypropyl neodecanoate | Ingestion | hematopoietic system | Not classified | Rat | NOAEL 1,000 mg/kg/day | 90 days |
| 2,3-Epoxypropyl neodecanoate | Ingestion | liver | Not classified | Rat | NOAEL 1,000 mg/kg/day | 90 days |
| 2,3-Epoxypropyl neodecanoate | Ingestion | kidney and/or bladder | Not classified | Rat | NOAEL 100 mg/kg/day | 90 days |
| 2,3-Epoxypropyl neodecanoate | Ingestion | heart | Not classified | Rat | NOAEL 1,000 mg/kg/day | 90 days |
| 2,3-Epoxypropyl neodecanoate | Ingestion | skin | Not classified | Rat | NOAEL 1,000 mg/kg/day | 90 days |
| 2,3-Epoxypropyl neodecanoate | Ingestion | gastrointestinal tract | Not classified | Rat | NOAEL 1,000 mg/kg/day | 90 days |
| 2,3-Epoxypropyl neodecanoate | Ingestion | bone, teeth, nails, and/or hair | Not classified | Rat | NOAEL 1,000 mg/kg/day | 90 days |
| 2,3-Epoxypropyl neodecanoate | Ingestion | immune system | Not classified | Rat | NOAEL 1,000 mg/kg/day | 90 days |
| 2,3-Epoxypropyl neodecanoate | Ingestion | nervous system | Not classified | Rat | NOAEL 1,000 mg/kg/day | 90 days |
| 2,3-Epoxypropyl neodecanoate | Ingestion | eyes | Not classified | Rat | NOAEL 1,000 mg/kg/day | 90 days |
| 2,3-Epoxypropyl neodecanoate | Ingestion | respiratory system | Not classified | Rat | NOAEL 1,000 mg/kg/day | 90 days |
| 2,3-Epoxypropyl neodecanoate | Ingestion | vascular system | Not classified | Rat | NOAEL 1,000 mg/kg/day | 90 days |
| Cumene | Inhalation | auditory system | Not classified | Rat | NOAEL 59 mg/l | 13 weeks |
| Cumene | Inhalation | endocrine system | Not classified | Rat | NOAEL 59 mg/l | 13 weeks |
| Cumene | Inhalation | hematopoietic system | Not classified | Rat | NOAEL 59 mg/l | 13 weeks |
| Cumene | Inhalation | liver | Not classified | Rat | NOAEL 59 mg/l | 13 weeks |
| Cumene | Inhalation | nervous system | Not classified | Rat | NOAEL 59 mg/l | 13 weeks |
| Cumene | Inhalation | eyes | Not classified | Rat | NOAEL 59 mg/l | 13 weeks |
| Cumene | Inhalation | kidney and/or bladder | Not classified | Rat | NOAEL 4.9 mg/l | 13 weeks |
| Cumene | Inhalation | respiratory system | Not classified | Rat | NOAEL 59 mg/l | 13 weeks |
| Cumene | Ingestion | kidney and/or bladder | Not classified | Rat | NOAEL 769 mg/kg/day | 6 months |
| Cumene | Ingestion | heart | Not classified | Rat | NOAEL 769 mg/kg/day | 6 months |
| Cumene | Ingestion | endocrine system | Not classified | Rat | NOAEL 769 | 6 months |

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|---|---|---|---|---|---|---|
| | | | | | mg/kg/day | |
| Cumene | Ingestion | hematopoietic system | Not classified | Rat | NOAEL 769 mg/kg/day | 6 months |
| Cumene | Ingestion | liver | Not classified | Rat | NOAEL 769 mg/kg/day | 6 months |
| Cumene | Ingestion | respiratory system | Not classified | Rat | NOAEL 769 mg/kg/day | 6 months |
| Napthalene | Dermal | blood | Causes damage to organs through prolonged or repeated exposure | Human | NOAEL Not available | poisoning and/or abuse |
| Napthalene | Dermal | eyes | Not classified | Human | NOAEL Not available | occupational exposure |
| Napthalene | Inhalation | respiratory system | Causes damage to organs through prolonged or repeated exposure | Rat | LOAEL 0.01 mg/l | 13 weeks |
| Napthalene | Inhalation | blood | Causes damage to organs through prolonged or repeated exposure | Human | NOAEL Not available | poisoning and/or abuse |
| Napthalene | Inhalation | eyes | Not classified | Human | NOAEL Not available | occupational exposure |
| Napthalene | Ingestion | blood | Causes damage to organs through prolonged or repeated exposure | Human | NOAEL Not available | poisoning and/or abuse |
| Napthalene | Ingestion | eyes | May cause damage to organs though prolonged or repeated exposure | Rabbit | LOAEL 500 mg/kg/day | 15 days |
| (3',4'-Epoxycyclohexylmethyl) 3,4-epoxycyclohexanecarboxylate | Ingestion | olfactory system | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 50 mg/kg/day | 91 days |
| (3',4'-Epoxycyclohexylmethyl) 3,4-epoxycyclohexanecarboxylate | Ingestion | liver | Not classified | Rat | NOAEL 500 mg/kg/day | 91 days |
| (3',4'-Epoxycyclohexylmethyl) 3,4-epoxycyclohexanecarboxylate | Ingestion | kidney and/or bladder | Not classified | Rat | NOAEL 500 mg/kg/day | 91 days |
| (3',4'-Epoxycyclohexylmethyl) 3,4-epoxycyclohexanecarboxylate | Ingestion | heart | Not classified | Rat | NOAEL 500 mg/kg/day | 91 days |
| (3',4'-Epoxycyclohexylmethyl) 3,4-epoxycyclohexanecarboxylate | Ingestion | skin | Not classified | Rat | NOAEL 500 mg/kg/day | 91 days |
| (3',4'-Epoxycyclohexylmethyl) 3,4-epoxycyclohexanecarboxylate | Ingestion | endocrine system | Not classified | Rat | NOAEL 500 mg/kg/day | 91 days |
| (3',4'-Epoxycyclohexylmethyl) 3,4-epoxycyclohexanecarboxylate | Ingestion | gastrointestinal tract | Not classified | Rat | NOAEL 500 mg/kg/day | 91 days |
| (3',4'-Epoxycyclohexylmethyl) 3,4-epoxycyclohexanecarboxylate | Ingestion | hematopoietic system | Not classified | Rat | NOAEL 500 mg/kg/day | 91 days |
| (3',4'-Epoxycyclohexylmethyl) 3,4-epoxycyclohexanecarboxylate | Ingestion | immune system | Not classified | Rat | NOAEL 500 mg/kg/day | 91 days |
| (3',4'- | Ingestion | nervous system | Not classified | Rat | NOAEL 500 | 91 days |

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|---|---|---|---|---|---|---|
| Epoxycyclohexylmethyl) 3,4-epoxycyclohexanecarboxylate | | | | | mg/kg/day | |
| (3',4'-Epoxycyclohexylmethyl) 3,4-epoxycyclohexanecarboxylate | Ingestion | eyes | Not classified | Rat | NOAEL 500 mg/kg/day | 91 days |
| (3',4'-Epoxycyclohexylmethyl) 3,4-epoxycyclohexanecarboxylate | Ingestion | respiratory system | Not classified | Rat | NOAEL 500 mg/kg/day | 91 days |
| (3',4'-Epoxycyclohexylmethyl) 3,4-epoxycyclohexanecarboxylate | Ingestion | vascular system | Not classified | Rat | NOAEL 500 mg/kg/day | 91 days |
| Carbon black | Inhalation | pneumoconiosis | Not classified | Human | NOAEL Not available | occupational exposure |
| Dibutyltin dilaurate | Ingestion | liver | Causes damage to organs through prolonged or repeated exposure | Rat | NOAEL 2 mg/kg/day | 2 weeks |
| Dibutyltin dilaurate | Ingestion | immune system | Causes damage to organs through prolonged or repeated exposure | Rat | NOAEL 0.3 mg/kg/day | 28 days |
| Formaldehyde | Dermal | respiratory system | Not classified | Mouse | NOAEL 80 mg/kg/day | 60 weeks |
| Formaldehyde | Inhalation | respiratory system | Causes damage to organs through prolonged or repeated exposure | Rat | NOAEL 0.3 ppm | 28 months |
| Formaldehyde | Inhalation | liver | Not classified | Rat | NOAEL 20 ppm | 13 weeks |
| Formaldehyde | Inhalation | hematopoietic system | Not classified | Mouse | NOAEL 15 ppm | 3 weeks |
| Formaldehyde | Inhalation | nervous system | Not classified | Mouse | NOAEL 10 ppm | 13 weeks |
| Formaldehyde | Inhalation | endocrine system | Not classified | Rat | NOAEL 15 ppm | 28 months |
| Formaldehyde | Inhalation | immune system | Not classified | Rat | NOAEL 15 ppm | 28 months |
| Formaldehyde | Inhalation | muscles | Not classified | Rat | NOAEL 15 ppm | 28 months |
| Formaldehyde | Inhalation | kidney and/or bladder | Not classified | Rat | NOAEL 15 ppm | 28 months |
| Formaldehyde | Inhalation | gastrointestinal tract | Not classified | Rat | NOAEL 15 ppm | 2 years |
| Formaldehyde | Inhalation | eyes | Not classified | Rat | NOAEL 14.3 ppm | 2 years |
| Formaldehyde | Inhalation | vascular system | Not classified | Rat | NOAEL 14.3 ppm | 2 years |
| Formaldehyde | Inhalation | heart | Not classified | Mouse | NOAEL 14.3 ppm | 2 years |
| Formaldehyde | Ingestion | liver | Not classified | Rat | NOAEL 300 mg/kg/day | 2 years |
| Formaldehyde | Ingestion | immune system | Not classified | Rat | NOAEL 20 mg/kg/day | 4 weeks |
| Formaldehyde | Ingestion | kidney and/or bladder | Not classified | Rat | NOAEL 15 mg/kg/day | 24 months |
| Formaldehyde | Ingestion | nervous system | Not classified | Rat | NOAEL 109 mg/kg/day | 2 years |
| Formaldehyde | Ingestion | heart | Not classified | Rat | NOAEL 300 mg/kg/day | 2 years |
| Formaldehyde | Ingestion | endocrine system | Not classified | Rat | NOAEL 300 mg/kg/day | 2 years |
| Formaldehyde | Ingestion | hematopoietic system | Not classified | Rat | NOAEL 300 mg/kg/day | 2 years |
| Formaldehyde | Ingestion | respiratory system | Not classified | Rat | NOAEL 300 mg/kg/day | 2 years |

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|---|---|---|---|---|---|---|
| Formaldehyde | Ingestion | vascular system | Not classified | Rat | NOAEL 300 mg/kg/day | 2 years |
| Formaldehyde | Ingestion | skin | Not classified | Rat | NOAEL 109 mg/kg/day | 2 years |
| Formaldehyde | Ingestion | muscles | Not classified | Rat | NOAEL 109 mg/kg/day | 2 years |
| Formaldehyde | Ingestion | eyes | Not classified | Rat | NOAEL 109 mg/kg/day | 2 years |

**Aspiration Hazard**

| Name | Value |
|---|---|
| Heavy aromatic solvent naphtha (petroleum) | Aspiration hazard |
| Light aromatic solvent naphtha (petroleum) | Aspiration hazard |
| Xylene | Aspiration hazard |
| 1,2,4-Trimethylbenzene | Aspiration hazard |
| Butyl alcohol | Some positive data exist, but the data are not sufficient for classification |
| Ethylbenzene | Aspiration hazard |
| Cumene | 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)

# 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 |
|---|---|---|
| Xylene | 1330-20-7 | Trade Secret 1 - 5 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 0.3 - 1.6 |
| Diethylene glycol butyl ether | 112-34-5 | 0.3 - 1.6 |
| Butyl alcohol | 71-36-3 | Trade Secret 0.5 - 1.5 |
| Ethylbenzene | 100-41-4 | Trade Secret 0.1 - 1 |
| Cumene | 98-82-8 | < 0.4 |
| Napthalene | 91-20-3 | < 0.4 |

## 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:** 3 **Flammability:** 2 **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:** | 21-4543-1 | **Version Number:** | 11.00 |
| **Issue Date:** | 07/01/26 | **Supersedes Date:** | 05/30/24 |

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