# Safety Data Sheet



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|---|---|---|---|
| **Document group:** | 08-1276-8 | **Version number:** | 13.02 |
| **Issue Date:** | 2020/10/20 | **Supercedes Date:** | 2019/12/09 |

This Safety Data Sheet has been prepared in accordance with the Canadian Hazardous Products Regulations.

## SECTION 1: Identification

### 1.1. Product identifier
16-501 3M(TM) Zinc Spray - Rust and Corrosion Inhibitor

**Product Identification Numbers**
80-6109-2798-2 80-6116-1654-3 CE-1006-8337-0

### 1.2. Recommended use and restrictions on use

**Intended Use**
PROTECTIVE COATING

**Specific Use**
protective coating

**Restrictions on use**
INDUSTRIAL USE ONLY

### 1.3. Supplier's details

| | |
|---|---|
| **Company:** | 3M Canada Company |
| **Division:** | Electrical Markets Division |
| **Address:** | 1840 Oxford Street East, Post Office Box 5757, London, Ontario N6A 4T1 |
| **Telephone:** | (800) 364-3577 |
| **Website:** | www.3M.ca |

### 1.4. Emergency telephone number
Medical Emergency Telephone:1-800-3M HELPS / 1-800-364-3577; Transportation Emergency Telephone (CANUTEC): (613) 996-6666

## SECTION 2: Hazard identification

### 2.1. Classification of the substance or mixture
Flammable Aerosol: Category 1.
Gas Under Pressure: Liquefied gas.
Serious Eye Damage/Irritation: Category 2A.
Reproductive Toxicity: Category 1B.
Simple Asphyxiant.

Specific Target Organ Toxicity (single exposure): Category 1.
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 | Gas cylinder | Exclamation mark | Health Hazard |

**Pictograms**

**Hazard statements**
Extremely flammable aerosol. Contains gas under pressure; may explode if heated.
Causes serious eye irritation. May cause drowsiness or dizziness. May damage fertility or the unborn child. May displace oxygen and cause rapid suffocation.
Causes damage to organs: cardiovascular system |

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, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe dust/fume/gas/mist/vapours/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 exposed skin thoroughly after handling.

**Response:**
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 eye irritation persists: Get medical advice/attention. IF exposed or concerned: Get medical advice/attention. Specific treatment (see Notes to Physician on this label).

**Storage:**
Protect from sunlight. Do not expose to temperatures exceeding 50C/122F. Store in a well-ventilated place. Keep container tightly closed. Store locked up.

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

**Notes to Physician:**
Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

**2.3. Other hazards**
None known.

3% of the mixture consists of ingredients of unknown acute oral toxicity.
3% of the mixture consists of ingredients of unknown acute dermal toxicity.

52% of the mixture consists of ingredients of unknown acute inhalation toxicity.

## SECTION 3: Composition/information on ingredients

This material is a mixture.

| Ingredient | C.A.S. No. | % by Wt | Common Name |
|---|---|---|---|
| ZINC | 7440-66-6 | 45 - 53 | Zinc |
| BUTANE | 106-97-8 | 10 - 15 Trade Secret * | Butane |
| PROPANE | 74-98-6 | 10 - 15 Trade Secret * | Propane |
| Methyl Ethyl Ketone (MEK) | 78-93-3 | 8 - 13 Trade Secret * | 2-Butanone |
| Heptane | 142-82-5 | 2 - 5 | Heptane |
| Resin Epoxy Ester | 66070-75-5 | 1 - 5 | Fatty acids, tall-oil, polymers with bisphenol A and epichlorohydrin |
| Solvent Naphtha (Petroleum), Light Aliphatic | 64742-89-8 | 2 - 5 | Solvent naphtha, petroleum, light aliph. |
| Toluene | 108-88-3 | 2 - 5 Trade Secret * | No Data Available |

*The actual concentration of this ingredient 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. Get medical attention.

**Skin Contact:**
Wash with soap and water. 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**
See Section 11.1. Information on toxicological effects.

**4.3. Indication of any immediate medical attention and special treatment required**
Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

## SECTION 5: Fire-fighting measures

**5.1. Suitable extinguishing media**
In case of fire: Use a carbon dioxide or dry chemical extinguisher 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 |
|---|---|
| Carbon monoxide | During Combustion |

| | |
|---|---|
| Carbon dioxide | During Combustion |
| Oxides of Lead | During Combustion |
| Oxides of Zinc | 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.

## SECTION 6: Accidental release measures

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

**6.2. Environmental precautions**
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. 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. 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 or professional use only. Not for consumer sale or use. Do not use in a confined area with minimal air exchange. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (gloves, respirators, etc.) as required.

**7.2. Conditions for safe storage including any incompatibilities**
Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Do not expose to temperatures exceeding 50C/122F. Store away from heat. Store away from acids. Store away from strong bases. 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 |
|---|---|---|---|---|
| BUTANE | 106-97-8 | ACGIH | STEL:1000 ppm | |
| Toluene | 108-88-3 | ACGIH | TWA:20 ppm | |
| Heptane | 142-82-5 | ACGIH | TWA:400 ppm;STEL:500 ppm | |
| PROPANE | 74-98-6 | ACGIH | Limit value not established: | simple asphyxiant |

| | | | | |
|---|---|---|---|---|
| Methyl Ethyl Ketone (MEK) | 78-93-3 | ACGIH | TWA:200 ppm;STEL:300 ppm | |

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

**8.2. Exposure controls**

**8.2.1. Engineering controls**
Do not remain in area where available oxygen may be reduced. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

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

**Eye/face protection**

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

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

**Respiratory protection**

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

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

## SECTION 9: Physical and chemical properties

**9.1. Information on basic physical and chemical properties**

| | |
|---|---|
| **Physical state** | Liquid |
| **Specific Physical Form:** | Compressed Gas |
| **Colour** | Gray |
| **Odour** | Hydrocarbon |
| **Odour threshold** | *No Data Available* |
| **pH** | *Not Applicable* |
| **Melting point/Freezing point** | *Not Applicable* |
| **Boiling point** | -42.2 - 162.8 ºC |
| **Flash Point** | -61.1 ºC [*Test Method:*Closed Cup] [*Details:*Based on butane] |
| **Evaporation rate** | >=1 [*Ref Std:*ETHER=1] |

| | |
|---|---|
| **Flammability (solid, gas)** | Not Applicable |
| **Flammable Limits(LEL)** | 0.9 % |
| **Flammable Limits(UEL)** | Approximately 10 % |
| **Vapour Pressure** | *No Data Available* |
| **Viscosity/Kinematic Viscosity Viscosity/Kinematic Viscosity** | *No Data Available* |
| **Density** | 1,144 kg/l |
| **Relative density** | 1.15 [*Ref Std:*WATER=1] [*Details:*Reference standard: Water = 1] |
| **Water solubility** | *No Data Available* |
| **Solubility- non-water** | *No Data Available* |
| **Partition coefficient: n-octanol/ water** | *No Data Available* |
| **Autoignition temperature** | *No Data Available* |
| **Decomposition temperature** | *No Data Available* |
| **Viscosity/Kinematic Viscosity** | *No Data Available* |
| **Volatile Organic Compounds** | Approximately 52 g/l *No Data Available* |
| **Percent volatile** | Approximately 88 % volume |
| **VOC Less H2O & Exempt Solvents** | *No Data Available* |

**Nanoparticles**
This material does not contain nanoparticles.

## SECTION 10: Stability and reactivity

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

**10.2. Chemical stability**
Stable.

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

**10.4. Conditions to avoid**
Heat
Sparks and/or flames

**10.5. Incompatible materials**
Strong acids
Strong bases
Strong oxidizing agents

**10.6. Hazardous decomposition products**

| Substance | Condition |
|---|---|
| Hydrocarbons | Normal Use |
| Ketones | Normal Use |
| Toxic Vapor, Gas, Particulate | Normal Use |

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. Simple Asphyxiation: Signs/symptoms may include increased heart rate, rapid respirations, drowsiness, headache, incoordination, altered judgement, nausea, vomiting, lethargy, seizures, coma, and may be fatal. 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:**
Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

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

**Ingestion:**
May be harmful if swallowed. Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea. May cause additional health effects (see below).

**Additional Health Effects:**

**Single exposure may cause target organ effects:**
Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness. Cardiac Sensitization: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

**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. Olfactory Effects: Signs/symptoms may include decreased ability to detect odours 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.

**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-Dust/Mist(4 hr) | | No data available; calculated ATE5 - 12.5 mg/l |
| Overall product | Ingestion | | No data available; calculated ATE2,000 - 5,000 mg/kg |
| ZINC | Dermal | Professio | LD50 estimated to be > 5,000 mg/kg |

| | | | |
|---|---|---|---|
| | | nal judgeme nt | |
| ZINC | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 5.41 mg/l |
| ZINC | Ingestion | Rat | LD50 > 2,000 mg/kg |
| PROPANE | Inhalation-Gas (4 hours) | Rat | LC50 > 200,000 ppm |
| Methyl Ethyl Ketone (MEK) | Dermal | Rabbit | LD50 > 8,050 mg/kg |
| Methyl Ethyl Ketone (MEK) | Inhalation-Vapor (4 hours) | Rat | LC50 34.5 mg/l |
| Methyl Ethyl Ketone (MEK) | Ingestion | Rat | LD50 2,737 mg/kg |
| BUTANE | Inhalation-Gas (4 hours) | Rat | LC50 277,000 ppm |
| 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 |
| Heptane | Dermal | Rabbit | LD50 3,000 mg/kg |
| Heptane | Inhalation-Vapor (4 hours) | Rat | LC50 103 mg/l |
| Heptane | Ingestion | Rat | LD50 > 15,000 mg/kg |
| Solvent Naphtha (Petroleum), Light Aliphatic | Dermal | Rabbit | LD50 3,000 mg/kg |
| Solvent Naphtha (Petroleum), Light Aliphatic | Inhalation-Vapor (4 hours) | Rat | LC50 > 5.2 mg/l |
| Solvent Naphtha (Petroleum), Light Aliphatic | Ingestion | Rat | LD50 > 5,000 mg/kg |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name | Species | Value |
|---|---|---|
| PROPANE | Rabbit | Minimal irritation |
| Methyl Ethyl Ketone (MEK) | Rabbit | Minimal irritation |
| BUTANE | Professional judgement | No significant irritation |
| Toluene | Rabbit | Irritant |
| Heptane | Human | Mild irritant |
| Solvent Naphtha (Petroleum), Light Aliphatic | Rabbit | Irritant |

**Serious Eye Damage/Irritation**

| Name | Species | Value |
|---|---|---|
| ZINC | Rabbit | No significant irritation |
| PROPANE | Rabbit | Mild irritant |
| Methyl Ethyl Ketone (MEK) | Rabbit | Severe irritant |
| BUTANE | Rabbit | No significant irritation |
| Toluene | Rabbit | Moderate irritant |
| Heptane | Professional judgement | Moderate irritant |
| Solvent Naphtha (Petroleum), Light Aliphatic | Rabbit | No significant irritation |

**Skin Sensitization**

| Name | Species | Value |
|---|---|---|
| Toluene | Guinea | Not classified |

| | | |
|---|---|---|
| | pig | |

**Respiratory Sensitization**
For the component/components, either no data are currently available or the data are not sufficient for classification.

**Germ Cell Mutagenicity**

| Name | Route | Value |
|---|---|---|
| PROPANE | In Vitro | Not mutagenic |
| Methyl Ethyl Ketone (MEK) | In Vitro | Not mutagenic |
| BUTANE | In Vitro | Not mutagenic |
| Toluene | In Vitro | Not mutagenic |
| Toluene | In vivo | Not mutagenic |
| Heptane | In Vitro | Not mutagenic |
| Solvent Naphtha (Petroleum), Light Aliphatic | In Vitro | Not mutagenic |

**Carcinogenicity**

| Name | Route | Species | Value |
|---|---|---|---|
| Methyl Ethyl Ketone (MEK) | 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 |
| Solvent Naphtha (Petroleum), Light Aliphatic | Dermal | Mouse | Some positive data exist, but the data are not sufficient for classification |

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

| Name | Route | Value | Species | Test result | Exposure Duration |
|---|---|---|---|---|---|
| Methyl Ethyl Ketone (MEK) | 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 mg/kg/day | during gestation |
| Toluene | Inhalation | Toxic to development | Human | NOAEL Not available | poisoning and/or abuse |

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|---|---|---|---|---|---|---|
| PROPANE | Inhalation | cardiac sensitization | Causes damage to organs | Human | NOAEL Not available | |
| PROPANE | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| PROPANE | Inhalation | respiratory irritation | Not classified | Human | NOAEL Not available | |
| Methyl Ethyl Ketone (MEK) | Inhalation | central nervous system depression | May cause drowsiness or dizziness | official classification | NOAEL Not available | |
| Methyl Ethyl Ketone (MEK) | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | |
| Methyl Ethyl Ketone (MEK) | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Professional | NOAEL Not available | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | judgement | | |
| Methyl Ethyl Ketone (MEK) | Ingestion | liver | Not classified | Rat | NOAEL Not available | not applicable |
| Methyl Ethyl Ketone (MEK) | Ingestion | kidney and/or bladder | Not classified | Rat | LOAEL 1,080 mg/kg | not applicable |
| BUTANE | Inhalation | cardiac sensitization | Causes damage to organs | Human | NOAEL Not available | |
| BUTANE | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human and animal | NOAEL Not available | |
| BUTANE | Inhalation | heart | Not classified | Dog | NOAEL 5,000 ppm | 25 minutes |
| BUTANE | Inhalation | respiratory irritation | Not classified | Rabbit | 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 |
| Heptane | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| Heptane | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | |
| Heptane | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| Solvent Naphtha (Petroleum), Light Aliphatic | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human and animal | NOAEL Not available | |
| Solvent Naphtha (Petroleum), Light Aliphatic | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | | NOAEL Not available | |
| Solvent Naphtha (Petroleum), Light Aliphatic | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Professional judgement | NOAEL Not available | |

## Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|---|---|---|---|---|---|---|
| Methyl Ethyl Ketone (MEK) | Dermal | nervous system | Not classified | Guinea pig | NOAEL Not available | 31 weeks |
| Methyl Ethyl Ketone (MEK) | 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 (MEK) | Ingestion | liver | Not classified | Rat | NOAEL Not available | 7 days |
| Methyl Ethyl Ketone (MEK) | Ingestion | nervous system | Not classified | Rat | NOAEL 173 mg/kg/day | 90 days |
| BUTANE | Inhalation | kidney and/or bladder \| blood | Not classified | Rat | NOAEL 4,489 ppm | 90 days |
| Toluene | Inhalation | auditory system \| eyes \| olfactory system | Causes damage to organs through prolonged or repeated exposure | Human | NOAEL Not available | poisoning and/or abuse |
| Toluene | Inhalation | nervous system | May cause damage to organs though prolonged or repeated | Human | NOAEL Not available | poisoning and/or abuse |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | exposure | | | |
| Toluene | Inhalation | respiratory system | Some positive data exist, but the data are not sufficient for classification | Rat | LOAEL 2.3 mg/l | 15 months |
| Toluene | Inhalation | heart \| liver \| kidney and/or bladder | Not classified | Rat | NOAEL 11.3 mg/l | 15 weeks |
| Toluene | Inhalation | endocrine system | Not classified | Rat | NOAEL 1.1 mg/l | 4 weeks |
| Toluene | Inhalation | immune system | Not classified | Mouse | NOAEL Not available | 20 days |
| Toluene | Inhalation | bone, teeth, nails, and/or hair | Not classified | Mouse | NOAEL 1.1 mg/l | 8 weeks |
| Toluene | Inhalation | hematopoietic system \| vascular system | Not classified | Human | NOAEL Not available | occupational exposure |
| Toluene | Inhalation | gastrointestinal tract | Not classified | Multiple animal species | NOAEL 11.3 mg/l | 15 weeks |
| Toluene | Ingestion | nervous system | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 625 mg/kg/day | 13 weeks |
| Toluene | Ingestion | heart | Not classified | Rat | NOAEL 2,500 mg/kg/day | 13 weeks |
| Toluene | Ingestion | liver \| kidney and/or bladder | Not classified | Multiple animal species | NOAEL 2,500 mg/kg/day | 13 weeks |
| Toluene | Ingestion | hematopoietic system | Not classified | Mouse | NOAEL 600 mg/kg/day | 14 days |
| Toluene | Ingestion | endocrine system | Not classified | Mouse | NOAEL 105 mg/kg/day | 28 days |
| Toluene | Ingestion | immune system | Not classified | Mouse | NOAEL 105 mg/kg/day | 4 weeks |
| Heptane | Inhalation | liver \| nervous system \| kidney and/or bladder | Not classified | Rat | NOAEL 12 mg/l | 26 weeks |

**Aspiration Hazard**

| Name | Value |
|---|---|
| Toluene | Aspiration hazard |
| Heptane | Aspiration hazard |
| Solvent Naphtha (Petroleum), Light Aliphatic | 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

No data available.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

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

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

## SECTION 14: Transport Information

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

**Global inventory status**

Contact 3M for more information. The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

## SECTION 16: Other information

**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.**
**Health:** 2 **Flammability:** 4 **Instability:** 1 **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.

**HMIS Hazard Classification**
**Health:** *2 **Flammability:** 4 **Physical Hazard:** 0 **Personal Protection:** X - See PPE section.

Hazardous Material Identification System (HMIS® IV) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS® IV ratings are to be used with a fully implemented HMIS® IV program. HMIS® is a registered mark of the American Coatings Association (ACA).

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