# Safety Data Sheet



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|---|---|---|---|
| **Document Group:** | 30-3724-9 | **Version Number:** | 3.03 |
| **Issue Date:** | 05/29/20 | **Supercedes Date:** | 05/28/20 |

**Product identifier**
3M™ Aerospace Sealant AC-730 B-1/2

**ID Number(s):**

41-4901-0261-7, 41-4901-0272-4, 70-0052-0375-0, 70-0052-0377-6, 70-0052-0378-4, 70-0052-0379-2, 70-0052-0382-6, 70-0052-0383-4, 70-0052-0384-2, 70-0052-0572-2, 70-0052-0778-5, 70-0052-0891-6, 70-0052-1966-5, 70-0052-2233-9, 70-0052-2234-7, 70-0052-2235-4, 70-0052-2236-2, 70-0052-2237-0, 70-0052-2238-8, 70-0052-2239-6, 70-0052-2240-4, 70-0052-4455-6, 70-0052-4456-4, 70-0052-4457-2, 70-0052-4458-0

7100094966, 7100094924, 7000048230, 7010371673, 7000048231, 7100094684, 7010370469, 7010299845, 7000048346, 7100099213, 7000048347, 7000048348, 7000048349, 7000048350, 7000048351, 7000144688, 7100059463, 7010370838, 7010333263, 7010292899, 7010333003, 7100082941

**Recommended use**
Sealant

**Supplier's details**

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

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

**This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet (SDS), Article Information Sheet (AIS), or Article Information Letter (AIL) for each of these components is included. Please do not separate the component documents from this cover page. The document numbers for components of this product are:**

30-2761-2, 30-2850-3

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particular purpose and suitable for user's method of use or application.

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# Safety Data Sheet



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|---|---|---|---|
| **Document Group:** | 30-2761-2 | **Version Number:** | 2.08 |
| **Issue Date:** | 07/17/20 | **Supercedes Date:** | 06/03/20 |

## SECTION 1: Identification

**1.1. Product identifier**
3M™ Aerospace Sealant AC-730 B-1/2, B-2, and B-6 Base

**Product Identification Numbers**
LC-B100-1075-5, LC-B100-1075-6, LC-B100-1075-7, LC-B100-1075-8, LC-B100-1075-9, LC-B100-1076-0, LC-B100-1076-8, LC-B100-1077-0, LC-B100-1091-1, LC-B100-1091-2, LC-B100-1495-5, 41-4901-0211-2, 42-0044-2153-5, 42-0044-2154-3, 42-0044-2155-0, 42-0044-2156-8, 42-0044-2220-2, 42-0044-2240-0, 42-0044-2264-0, 42-0044-2265-7, 70-0052-1980-6, 70-0052-1981-4
7010370475, 7010301669, 4100040293, 4100040292

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

**Recommended use**
For industrial or professional use only., Sealant

**1.3. Supplier's details**

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

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

## SECTION 2: Hazard identification

**2.1. Hazard classification**
Skin Sensitizer: Category 1.

**2.2. Label elements**
**Signal word**
Warning

**Symbols**
Exclamation mark |

**Pictograms**

**Hazard Statements**
May cause an allergic skin reaction.

**Precautionary Statements**

**Prevention:**
Avoid breathing dust/fume/gas/mist/vapors/spray.
Wear protective gloves.
Contaminated work clothing must not be allowed out of the workplace.

**Response:**
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.

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

## SECTION 3: Composition/information on ingredients

| Ingredient | C.A.S. No. | % by Wt |
|---|---|---|
| POLYSULFIDE RUBBER | 68611-50-7 | 60 - 70 |
| CALCIUM CARBONATE | 471-34-1 | 20 - 30 |
| FATTY ACIDS, C16-18 AND C18 UNSATURATED | 67701-08-0 | 1 - 5 |
| ZINC PHOSPHATE | 7779-90-0 | < 2.5 |
| PHENOL-FORMALDEHYDE POLYMER | 9003-35-4 | 0.1 - 0.5 Trade Secret * |
| EPOXY RESIN | 25085-99-8 | 0.01 - 0.2 Trade Secret * |

*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:**
Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, 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**
Not applicable

## SECTION 5: Fire-fighting measures

**5.1. Suitable extinguishing media**
In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

**5.2. Special hazards arising from the substance or mixture**
None inherent in this product.

**Hazardous Decomposition or By-Products**

| Substance | Condition |
|---|---|
| Aldehydes | During Combustion |
| Formaldehyde | During Combustion |
| Carbon monoxide | During Combustion |
| Carbon dioxide | During Combustion |
| Hydrogen Chloride | During Combustion |
| Oxides of Nitrogen | During Combustion |
| Oxides of Sulfur | During Combustion |

**5.3. Special protective actions for fire-fighters**
Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

## SECTION 6: Accidental release measures

**6.1. Personal precautions, protective equipment and emergency procedures**
Evacuate area. 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. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

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

**6.3. Methods and material for containment and cleaning up**
Contain spill. 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. Place in a closed 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**
Avoid breathing 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.

**7.2. Conditions for safe storage including any incompatibilities**
Store away from acids. Store away from strong bases.

## 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 |
|---|---|---|---|---|
| Limestone | 471-34-1 | OSHA | TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3 | |

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.

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

**Eye/face protection**
None required.

**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

When only incidental contact is anticipated, alternative glove material(s) may be used. If contact with the glove does occur, remove immediately and replace with a set of new gloves. For incidental contact, gloves made of the following material(s) may be used:Nitrile Rubber

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

**Respiratory protection**

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following

respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

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

## SECTION 9: Physical and chemical properties

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

| | |
|---|---|
| **Appearance** | |
| **Physical state** | Liquid |
| **Color** | Tan |
| **Specific Physical Form:** | Thixotropic Paste |
| **Odor** | Sulfuric |
| **Odor threshold** | *No Data Available* |
| **pH** | *No Data Available* |
| **Melting point** | *Not Applicable* |
| **Boiling Point** | *Not Applicable* |
| **Flash Point** | >=200 ºF [*Test Method:*Closed Cup] |
| **Evaporation rate** | *Not Applicable* |
| **Flammability (solid, gas)** | Not Applicable |
| **Flammable Limits(LEL)** | *Not Applicable* |
| **Flammable Limits(UEL)** | *Not Applicable* |
| **Vapor Pressure** | *No Data Available* |
| **Vapor Density** | *No Data Available* |
| **Density** | 1.5 g/ml |
| **Specific Gravity** | 1.5 [*Ref Std:*WATER=1] |
| **Solubility in Water** | Nil |
| **Solubility- non-water** | *No Data Available* |
| **Partition coefficient: n-octanol/ water** | *No Data Available* |
| **Autoignition temperature** | *No Data Available* |
| **Decomposition temperature** | *No Data Available* |
| **Viscosity** | *No Data Available* |
| **Hazardous Air Pollutants** | 0 % weight |
| **Molecular weight** | *Not Applicable* |
| **Volatile Organic Compounds** | 3.8 g/l [*Test Method:*calculated SCAQMD rule 443.1] |
| **VOC Less H2O & Exempt Solvents** | 3.8 g/l [*Test Method:*calculated SCAQMD rule 443.1] |

## SECTION 10: Stability and reactivity

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

**10.2. Chemical stability**
Stable.

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

**10.4. Conditions to avoid**
None known.

**10.5. Incompatible materials**
Reducing agents
Strong acids

Strong bases

**10.6. Hazardous decomposition products**

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

Refer to section 5.2 for hazardous decomposition products during combustion.

# SECTION 11: Toxicological information

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

**11.1. Information on Toxicological effects**

**Signs and Symptoms of Exposure**

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

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

**Skin Contact:**
Contact with the skin during product use is not expected to result in significant irritation. Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

**Eye Contact:**
Contact with the eyes during product use is not expected to result in significant irritation.

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

**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 | Ingestion | | No data available; calculated ATE >5,000 mg/kg |
| POLYSULFIDE RUBBER | Dermal | Rat | LD50 > 7,800 mg/kg |
| POLYSULFIDE RUBBER | Ingestion | Rat | LD50 > 5,000 mg/kg |
| CALCIUM CARBONATE | Dermal | Rat | LD50 > 2,000 mg/kg |
| CALCIUM CARBONATE | Inhalation-Dust/Mist (4 hours) | Rat | LC50 3 mg/l |
| CALCIUM CARBONATE | Ingestion | Rat | LD50 6,450 mg/kg |
| ZINC PHOSPHATE | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| ZINC PHOSPHATE | Ingestion | Rat | LD50 > 5,000 mg/kg |
| FATTY ACIDS, C16-18 AND C18 UNSATURATED | Ingestion | Rat | LD50 > 10,000 mg/kg |
| PHENOL-FORMALDEHYDE POLYMER | Dermal | Rat | LD50 > 2,000 mg/kg |
| PHENOL-FORMALDEHYDE POLYMER | Ingestion | Rat | LD50 > 2,900 mg/kg |
| EPOXY RESIN | Dermal | Rat | LD50 > 1,600 mg/kg |

| | | | |
|---|---|---|---|
| EPOXY RESIN | Ingestion | Rat | LD50 > 1,000 mg/kg |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name | Species | Value |
|---|---|---|
| POLYSULFIDE RUBBER | Rabbit | No significant irritation |
| CALCIUM CARBONATE | Rabbit | No significant irritation |
| PHENOL-FORMALDEHYDE POLYMER | Human and animal | Mild irritant |
| EPOXY RESIN | Rabbit | Mild irritant |

**Serious Eye Damage/Irritation**

| Name | Species | Value |
|---|---|---|
| POLYSULFIDE RUBBER | Rabbit | No significant irritation |
| CALCIUM CARBONATE | Rabbit | No significant irritation |
| PHENOL-FORMALDEHYDE POLYMER | Human and animal | Moderate irritant |
| EPOXY RESIN | Rabbit | Moderate irritant |

**Skin Sensitization**

| Name | Species | Value |
|---|---|---|
| POLYSULFIDE RUBBER | | Not classified |
| PHENOL-FORMALDEHYDE POLYMER | Human and animal | Sensitizing |
| EPOXY RESIN | Human and animal | Sensitizing |

**Respiratory Sensitization**

| Name | Species | Value |
|---|---|---|
| PHENOL-FORMALDEHYDE POLYMER | Human | Not classified |
| EPOXY RESIN | Human | Not classified |

**Germ Cell Mutagenicity**

| Name | Route | Value |
|---|---|---|
| EPOXY RESIN | In vivo | Not mutagenic |
| EPOXY RESIN | In Vitro | Some positive data exist, but the data are not sufficient for classification |

**Carcinogenicity**

| Name | Route | Species | Value |
|---|---|---|---|
| EPOXY RESIN | 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 |
|---|---|---|---|---|---|
| CALCIUM CARBONATE | Ingestion | Not classified for development | Rat | NOAEL 625 mg/kg/day | premating & during gestation |
| EPOXY RESIN | Ingestion | Not classified for female reproduction | Rat | NOAEL 750 mg/kg/day | 2 generation |

| | | | | | |
|---|---|---|---|---|---|
| EPOXY RESIN | Ingestion | Not classified for male reproduction | Rat | NOAEL 750 mg/kg/day | 2 generation |
| EPOXY RESIN | Dermal | Not classified for development | Rabbit | NOAEL 300 mg/kg/day | during organogenesis |
| EPOXY RESIN | Ingestion | Not classified for development | Rat | NOAEL 750 mg/kg/day | 2 generation |

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|---|---|---|---|---|---|---|
| CALCIUM CARBONATE | Inhalation | respiratory system | Not classified | Rat | NOAEL 0.812 mg/l | 90 minutes |
| PHENOL-FORMALDEHYDE POLYMER | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human and animal | NOAEL Not available | |

**Specific Target Organ Toxicity - repeated exposure**

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|---|---|---|---|---|---|---|
| CALCIUM CARBONATE | Inhalation | respiratory system | Not classified | Human | NOAEL Not available | occupational exposure |
| PHENOL-FORMALDEHYDE POLYMER | Inhalation | respiratory system | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | occupational exposure |
| EPOXY RESIN | Dermal | liver | Not classified | Rat | NOAEL 1,000 mg/kg/day | 2 years |
| EPOXY RESIN | Dermal | nervous system | Not classified | Rat | NOAEL 1,000 mg/kg/day | 13 weeks |
| EPOXY RESIN | Ingestion | auditory system \| heart \| endocrine system \| hematopoietic system \| liver \| eyes \| kidney and/or bladder | Not classified | Rat | NOAEL 1,000 mg/kg/day | 28 days |

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

**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.

Dispose of completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Combustion products will include halogen acid (HCl/HF/HBr). Facility must be capable of handling halogenated materials. 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):** Not regulated

# 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** |
|---|
| Not applicable |

| **Health Hazards** |
|---|
| Respiratory or Skin Sensitization |

## 15.2. State Regulations

Contact 3M for more information.

## 15.3. Chemical Inventories

The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

Contact 3M for more information.

## 15.4. International Regulations

Contact 3M for more information.

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

# SECTION 16: Other information

**NFPA Hazard Classification**
**Health:** 2 **Flammability:** 1 **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.

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|---|---|---|---|
| **Document Group:** | 30-2761-2 | **Version Number:** | 2.08 |
| **Issue Date:** | 07/17/20 | **Supercedes Date:** | 06/03/20 |

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**3M USA SDSs are available at www.3M.com**

# Safety Data Sheet



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|---|---|---|---|
| **Document Group:** | 30-2850-3 | **Version Number:** | 6.03 |
| **Issue Date:** | 02/28/19 | **Supercedes Date:** | 07/26/18 |

## SECTION 1: Identification

### 1.1. Product identifier
3M™ Aerospace Sealant AC-730 B-1/2 Catalyst

**Product Identification Numbers**
LC-B100-1078-3, LC-B100-1078-4, LC-B100-1078-5, LC-B100-1078-6, LC-B100-1078-7, LC-B100-1078-8, LC-B100-1107-5, LC-B100-1107-6, 41-4901-0237-7, 42-0044-2071-9, 42-0044-2239-2, 42-0044-2253-3, 70-0052-1996-2 7010301670

### 1.2. Recommended use and restrictions on use

**Recommended use**
Hardener, Sealant for aircraft industry.

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

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

## SECTION 2: Hazard identification

### 2.1. Hazard classification
Serious Eye Damage/Irritation: Category 2A.
Skin Corrosion/Irritation: Category 2.
Reproductive Toxicity: Category 1B.
Reproductive Toxicity: Lactation.
Carcinogenicity: Category 2.
Specific Target Organ Toxicity (repeated exposure): Category 1.

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

**Symbols**
Exclamation mark | Health Hazard |

**Pictograms**

**Hazard Statements**
Causes serious eye irritation.
Causes skin irritation.
May damage fertility or the unborn child.
May cause harm to breast-fed children.
Suspected of causing cancer.

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

**Precautionary Statements**

**Prevention:**
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust/fume/gas/mist/vapors/spray.
Avoid contact during pregnancy/while nursing.
Wear protective gloves and eye/face protection.
Do not eat, drink or smoke when using this product.
Wash thoroughly after handling.

**Response:**
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 ON SKIN: Wash with plenty of soap and water.
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
IF exposed or concerned: Get medical advice/attention.

**Storage:**
Store locked up.

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

12% of the mixture consists of ingredients of unknown acute oral toxicity.
16% of the mixture consists of ingredients of unknown acute dermal toxicity.

## SECTION 3: Composition/information on ingredients

| Ingredient | C.A.S. No. | % by Wt |
|---|---|---|
| MANGANESE DIOXIDE | 1313-13-9 | 30 - 45 Trade Secret * |
| HYDROGENATED TERPHENYL | 61788-32-7 | 30 - 40 |

| | | |
|---|---|---|
| PARTIALLY HYDROGENATED POLYPHENYLS | 68956-74-1 | 0 - 10 |
| DIPENTAMETHYLENETHIURAM HEXASULFIDE | 971-15-3 | 1 - 5 |
| TERPHENYL | 26140-60-3 | 1 - 5 |
| WATER | 7732-18-5 | 1 - 5 |
| NATURAL AMORPHOUS COMPOUNDS | Trade Secret* | 0 - 5 |
| QUARTZ SILICA | 14808-60-7 | 0.1 - 1 Trade Secret * |
| Sodium Hydroxide | 1310-73-2 | < 1 Trade Secret * |
| FERBAM | 14484-64-1 | <= 0.5 Trade Secret * |
| WHITE MINERAL OIL (PETROLEUM) | 8042-47-5 | <= 0.3 Trade Secret * |
| LEAD | 7439-92-1 | <= 0.1 Trade Secret * |
| Nickel | 7440-02-0 | < 0.05 |

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

## SECTION 4: First aid measures

**4.1. Description of first aid measures**

**Inhalation:**
Remove person to fresh air. If you feel unwell, get medical attention.

**Skin Contact:**
Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

**Eye Contact:**
Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

**If Swallowed:**
Rinse mouth. If you feel unwell, get medical attention.

**4.2. Most important symptoms and effects, both acute and delayed**
See Section 11.1. Information on toxicological effects.

**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 ordinary combustible material such as water or foam to extinguish.

**5.2. Special hazards arising from the substance or mixture**
None inherent in this product.

**Hazardous Decomposition or By-Products**

| Substance | Condition |
|---|---|
| Carbon monoxide | During Combustion |
| Carbon dioxide | During Combustion |
| Oxides of Nitrogen | During Combustion |
| Oxides of Lead | During Combustion |
| Oxides of Sulfur | During Combustion |

**5.3. Special protective actions for fire-fighters**
Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

## SECTION 6: Accidental release measures

**6.1. Personal precautions, protective equipment and emergency procedures**
Evacuate area. 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. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

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

**6.3. Methods and material for containment and cleaning up**
Contain spill. 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. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

## SECTION 7: Handling and storage

**7.1. Precautions for safe handling**
Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Avoid contact during pregnancy/while nursing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Use personal protective equipment (gloves, respirators, etc.) as required.

**7.2. Conditions for safe storage including any incompatibilities**
Store away from heat. Store away from acids.

## 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 |
|---|---|---|---|---|
| Sodium Hydroxide | 1310-73-2 | ACGIH | CEIL:2 mg/m3 | |
| Sodium Hydroxide | 1310-73-2 | OSHA | TWA:2 mg/m3 | |
| MANGANESE COMPOUNDS | 1313-13-9 | OSHA | CEIL(as Mn):5 mg/m3 | |
| MANGANESE, INORGANIC COMPOUNDS | 1313-13-9 | ACGIH | TWA(as Mn, inhalable fraction):0.1 mg/m3;TWA(as Mn, respirable fraction):0.02 mg/m3 | A4: Not class. as human carcin |
| FERBAM | 14484-64-1 | ACGIH | TWA(inhalable fraction):5 mg/m3 | A4: Not class. as human carcin |

| | | | | |
|---|---|---|---|---|
| FERBAM | 14484-64-1 | OSHA | TWA(as total dust):15 mg/m3 | |
| QUARTZ SILICA | 14808-60-7 | ACGIH | TWA(respirable fraction):0.025 mg/m3 | A2: Suspected human carcin. |
| QUARTZ SILICA | 14808-60-7 | OSHA | TWA Table Z-1(respirable):0.05 mg/m3;TWA Table Z-3(respirable):0.1 mg/m3 | |
| TERPHENYL | 26140-60-3 | ACGIH | CEIL:5 mg/m3 | |
| TERPHENYL | 26140-60-3 | OSHA | CEIL:9 mg/m3(1 ppm) | |
| HYDROGENATED TERPHENYL | 61788-32-7 | ACGIH | TWA:0.5 ppm | |
| LEAD | 7439-92-1 | ACGIH | TWA(as Pb):0.05 mg/m3 | A3: Confirmed animal carcin. |
| LEAD | 7439-92-1 | OSHA | TWA:0.05 mg/m3 | 29 CFR 1910.1025 |
| Nickel | 7440-02-0 | ACGIH | TWA(inhalable fraction):1.5 mg/m3 | A5: Not suspected human carcin |
| Nickel | 7440-02-0 | OSHA | TWA(as Ni):1 mg/m3 | |
| MINERAL OILS, HIGHLY-REFINED OILS | 8042-47-5 | ACGIH | TWA(inhalable fraction):5 mg/m3 | A4: Not class. as human carcin |
| Paraffin oil | 8042-47-5 | OSHA | TWA(as mist):5 mg/m3 | |

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.

**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.
Gloves made from the following material(s) are recommended: Butyl Rubber
Neoprene
Nitrile Rubber

**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**

| | |
|---|---|
| **General Physical Form:** | Liquid |
| **Odor, Color, Grade:** | Slight Odor, Dark Brown, Viscous Liquid |
| **Odor threshold** | *No Data Available* |
| **pH** | *Not Applicable* |
| **Melting point** | *Not Applicable* |
| **Boiling Point** | *No Data Available* |
| **Flash Point** | >=200 ºF [*Test Method:*Closed Cup] |
| **Evaporation rate** | *No Data Available* |
| **Flammability (solid, gas)** | Not Applicable |
| **Flammable Limits(LEL)** | *No Data Available* |
| **Flammable Limits(UEL)** | *No Data Available* |
| **Vapor Pressure** | Negligible |
| **Vapor Density** | >=1 [*Ref Std:*AIR=1] |
| **Density** | 1.58 g/ml |
| **Specific Gravity** | >=1.58 [*Ref Std:*WATER=1] |
| **Solubility in Water** | Nil |
| **Solubility- non-water** | *No Data Available* |
| **Partition coefficient: n-octanol/ water** | *No Data Available* |
| **Autoignition temperature** | *No Data Available* |
| **Decomposition temperature** | *No Data Available* |
| **Viscosity** | *No Data Available* |
| **Molecular weight** | *Not Applicable* |
| **Volatile Organic Compounds** | 3.0 g/l [*Test Method:*calculated SCAQMD rule 443.1] |
| **VOC Less H2O & Exempt Solvents** | 3.2 g/l [*Test Method:*calculated SCAQMD rule 443.1] |

## 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

**10.5. Incompatible materials**
Reducing agents
Strong acids

**10.6. Hazardous decomposition products**

| Substance | Condition |
|---|---|

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

# SECTION 11: Toxicological information

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

**11.1. Information on Toxicological effects**

**Signs and Symptoms of Exposure**

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

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

May cause additional health effects (see below).

**Skin Contact:**
Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, dryness, cracking, blistering, and pain.

**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:**

**Prolonged or repeated exposure may cause target organ effects:**
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.

Respiratory Effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish colored skin (cyanosis), sputum production, changes in lung function tests, and/or respiratory failure.

**Reproductive/Developmental Toxicity:**
Contains a chemical or chemicals which can cause birth defects or other reproductive harm. Contains a chemical or chemicals which may interfere with lactation or be harmful to breastfed children.

**Carcinogenicity:**
Contains a chemical or chemicals which can cause cancer.

| Ingredient | CAS No. | Class Description | Regulation |
|---|---|---|---|
| SILICA, CRYS AIRRESP | 14808-60-7 | Known human carcinogen | National Toxicology Program Carcinogens |

| | | | |
|---|---|---|---|
| LEAD | 7439-92-1 | Grp. 2B: Possible human carc. | International Agency for Research on Cancer |
| LEAD | 7439-92-1 | Anticipated human carcinogen | National Toxicology Program Carcinogens |
| Nickel | 7440-02-0 | Grp. 2B: Possible human carc. | International Agency for Research on Cancer |
| Nickel | 7440-02-0 | Anticipated human carcinogen | National Toxicology Program Carcinogens |
| QUARTZ SILICA | 14808-60-7 | Grp. 1: Carcinogenic to humans | International Agency for Research on Cancer |

**Toxicological Data**

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

**Acute Toxicity**

| Name | Route | Species | Value |
|---|---|---|---|
| Overall product | Dermal | | No data available; calculated ATE >5,000 mg/kg |
| Overall product | Ingestion | | No data available; calculated ATE2,000 - 5,000 mg/kg |
| MANGANESE DIOXIDE | Dermal | Rat | LD50 2,000 mg/kg |
| MANGANESE DIOXIDE | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 1.5 mg/l |
| MANGANESE DIOXIDE | Ingestion | Rat | LD50 > 2,197 mg/kg |
| HYDROGENATED TERPHENYL | Dermal | Rabbit | LD50 6,800 mg/kg |
| HYDROGENATED TERPHENYL | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 11.1 mg/l |
| HYDROGENATED TERPHENYL | Ingestion | Rat | LD50 > 10,000 mg/kg |
| DIPENTAMETHYLENETHIURAM HEXASULFIDE | Ingestion | Rat | LD50 > 5,000 mg/kg |
| TERPHENYL | Dermal | Rabbit | LD50 > 5,000 mg/kg |
| TERPHENYL | Inhalation-Dust/Mist (4 hours) | Rat | LD50 > 3.8 mg/l |
| TERPHENYL | Ingestion | Rat | LD50 2,304 mg/kg |
| QUARTZ SILICA | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| QUARTZ SILICA | Ingestion | | LD50 estimated to be > 5,000 mg/kg |
| FERBAM | Dermal | Rabbit | LD50 > 4,000 mg/kg |
| FERBAM | Inhalation-Dust/Mist (4 hours) | Rat | LC50 0.4 mg/l |
| FERBAM | Ingestion | Rat | LD50 1,130 mg/kg |
| WHITE MINERAL OIL (PETROLEUM) | Dermal | Rabbit | LD50 > 2,000 mg/kg |
| WHITE MINERAL OIL (PETROLEUM) | Ingestion | Rat | LD50 > 5,000 mg/kg |
| LEAD | Dermal | | LD50 estimated to be 2,000 - 5,000 mg/kg |
| Nickel | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| Nickel | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 2.55 mg/l |
| Nickel | Ingestion | Rat | LD50 > 9,000 mg/kg |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name | Species | Value |
|---|---|---|
| MANGANESE DIOXIDE | Rabbit | No significant irritation |
| HYDROGENATED TERPHENYL | Rabbit | No significant irritation |
| TERPHENYL | Rabbit | No significant irritation |
| Sodium Hydroxide | Rabbit | Corrosive |
| QUARTZ SILICA | Professional judgement | No significant irritation |
| FERBAM | Rabbit | No significant irritation |
| WHITE MINERAL OIL (PETROLEUM) | Rabbit | No significant irritation |
| LEAD | similar compoun | No significant irritation |

| | | |
|---|---|---|
| | ds | |
| Nickel | Rabbit | Minimal irritation |

**Serious Eye Damage/Irritation**

| Name | Species | Value |
|---|---|---|
| MANGANESE DIOXIDE | Rabbit | Mild irritant |
| HYDROGENATED TERPHENYL | Rabbit | No significant irritation |
| TERPHENYL | Rabbit | No significant irritation |
| Sodium Hydroxide | Rabbit | Corrosive |
| FERBAM | Rabbit | Severe irritant |
| WHITE MINERAL OIL (PETROLEUM) | Rabbit | Mild irritant |
| LEAD | similar compounds | Mild irritant |
| Nickel | Rabbit | Mild irritant |

**Skin Sensitization**

| Name | Species | Value |
|---|---|---|
| MANGANESE DIOXIDE | Mouse | Not classified |
| HYDROGENATED TERPHENYL | Human | Not classified |
| Sodium Hydroxide | Human | Not classified |
| FERBAM | Guinea pig | Not classified |
| WHITE MINERAL OIL (PETROLEUM) | Guinea pig | Not classified |
| Nickel | Human | Sensitizing |

**Respiratory Sensitization**

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

**Germ Cell Mutagenicity**

| Name | Route | Value |
|---|---|---|
| MANGANESE DIOXIDE | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| MANGANESE DIOXIDE | In vivo | Some positive data exist, but the data are not sufficient for classification |
| HYDROGENATED TERPHENYL | In vivo | Not mutagenic |
| DIPENTAMETHYLENETHIURAM HEXASULFIDE | In Vitro | Not mutagenic |
| TERPHENYL | In Vitro | Not mutagenic |
| TERPHENYL | In vivo | Not mutagenic |
| Sodium Hydroxide | In Vitro | Not mutagenic |
| QUARTZ SILICA | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| QUARTZ SILICA | In vivo | Some positive data exist, but the data are not sufficient for classification |
| WHITE MINERAL OIL (PETROLEUM) | In Vitro | Not mutagenic |
| LEAD | In vivo | Some positive data exist, but the data are not sufficient for classification |

**Carcinogenicity**

| Name | Route | Species | Value |
|---|---|---|---|
| QUARTZ SILICA | Inhalation | Human and animal | Carcinogenic |
| FERBAM | Ingestion | Rat | Not carcinogenic |
| WHITE MINERAL OIL (PETROLEUM) | Dermal | Mouse | Not carcinogenic |
| WHITE MINERAL OIL (PETROLEUM) | Inhalation | Multiple animal species | Not carcinogenic |
| LEAD | Not Specified | official classifica | Carcinogenic |

| | | | |
|---|---|---|---|
| | | tion | |
| Nickel | Inhalation | similar compoun ds | Carcinogenic |

## Reproductive Toxicity

### Reproductive and/or Developmental Effects

| Name | Route | Value | Species | Test Result | Exposure Duration |
|---|---|---|---|---|---|
| MANGANESE DIOXIDE | Inhalation | Not classified for female reproduction | Rat | NOAEL 20 mg/m3 | 2 generation |
| MANGANESE DIOXIDE | Inhalation | Not classified for male reproduction | Rabbit | LOAEL 250 mg/kg | 1 days |
| MANGANESE DIOXIDE | Ingestion | Not classified for development | Rat | LOAEL 354 mg/kg/day | premating into lactation |
| MANGANESE DIOXIDE | Inhalation | Not classified for development | Rat | LOAEL 61 mg/m3 | gestation into lactation |
| HYDROGENATED TERPHENYL | Ingestion | Not classified for female reproduction | Rat | NOAEL 81 mg/kg/day | 2 generation |
| HYDROGENATED TERPHENYL | Ingestion | Not classified for male reproduction | Rat | NOAEL 62 mg/kg/day | 2 generation |
| HYDROGENATED TERPHENYL | Ingestion | Not classified for development | Rat | NOAEL 500 mg/kg/day | 2 generation |
| FERBAM | Ingestion | Not classified for female reproduction | Rat | NOAEL 25 mg/kg/day | 3 generation |
| FERBAM | Ingestion | Not classified for male reproduction | Rat | NOAEL 25 mg/kg/day | 3 generation |
| FERBAM | Ingestion | Not classified for development | Rat | NOAEL 11 mg/kg/day | during organogenesis |
| WHITE MINERAL OIL (PETROLEUM) | Ingestion | Not classified for female reproduction | Rat | NOAEL 4,350 mg/kg/day | 13 weeks |
| WHITE MINERAL OIL (PETROLEUM) | Ingestion | Not classified for male reproduction | Rat | NOAEL 4,350 mg/kg/day | 13 weeks |
| WHITE MINERAL OIL (PETROLEUM) | Ingestion | Not classified for development | Rat | NOAEL 4,350 mg/kg/day | during gestation |
| LEAD | Not Specified | Toxic to female reproduction | Human | LOAEL 10 ug/dl blood | |
| LEAD | Not Specified | Toxic to male reproduction | Human | LOAEL 37 ug/dl blood | |
| LEAD | Not Specified | Toxic to development | Human | NOAEL Not available | |

### Lactation

| Name | Route | Species | Value |
|---|---|---|---|
| FERBAM | Ingestion | Rat | Causes 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 |
|---|---|---|---|---|---|---|
| Sodium Hydroxide | Inhalation | respiratory irritation | May cause respiratory irritation | Human | NOAEL Not available | |
| LEAD | Ingestion | nervous system | May cause damage to organs | Human | LOAEL 90 ug/dl blood | poisoning and/or abuse |
| LEAD | Ingestion | heart | Not classified | Human | NOAEL Not available | poisoning and/or abuse |

### Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|---|---|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| MANGANESE DIOXIDE | Inhalation | respiratory system | Causes damage to organs through prolonged or repeated exposure | Monkey | LOAEL 1.1 mg/m3 | 10 months |
| MANGANESE DIOXIDE | Inhalation | nervous system | Causes damage to organs through prolonged or repeated exposure | Human | NOAEL Not available | occupational exposure |
| HYDROGENATED TERPHENYL | Inhalation | liver | Not classified | Rat | NOAEL 0.5 mg/l | 90 days |
| HYDROGENATED TERPHENYL | Ingestion | endocrine system \| blood \| liver \| kidney and/or bladder | Not classified | Rat | NOAEL 144 mg/kg/day | 14 weeks |
| QUARTZ SILICA | Inhalation | silicosis | Causes damage to organs through prolonged or repeated exposure | Human | NOAEL Not available | occupational exposure |
| WHITE MINERAL OIL (PETROLEUM) | Ingestion | hematopoietic system | Not classified | Rat | NOAEL 1,381 mg/kg/day | 90 days |
| WHITE MINERAL OIL (PETROLEUM) | Ingestion | liver \| immune system | Not classified | Rat | NOAEL 1,336 mg/kg/day | 90 days |
| LEAD | Inhalation | kidney and/or bladder | May cause damage to organs though prolonged or repeated exposure | Human | LOAEL 60 ug/dl blood | occupational exposure |
| LEAD | Inhalation | hematopoietic system | May cause damage to organs though prolonged or repeated exposure | Human | LOAEL 50 ug/dl blood | occupational exposure |
| LEAD | Inhalation | nervous system | May cause damage to organs though prolonged or repeated exposure | Human | LOAEL 40 ug/dl blood | occupational exposure |
| LEAD | Inhalation | gastrointestinal tract | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | occupational exposure |
| LEAD | Inhalation | heart \| endocrine system \| immune system \| vascular system | Not classified | Human | NOAEL Not available | occupational exposure |
| LEAD | Ingestion | bone, teeth, nails, and/or hair | May cause damage to organs though prolonged or repeated exposure | Rat | LOAEL 20 ug/dl blood | 3 months |
| LEAD | Ingestion | eyes | May cause damage to organs though prolonged or repeated exposure | Rat | LOAEL 0.5 mg/kg/day | 20 days |
| LEAD | Ingestion | hematopoietic system \| kidney and/or bladder | May cause damage to organs though prolonged or repeated exposure | Human | LOAEL 40 ug/dl blood | environmental exposure |
| LEAD | Ingestion | nervous system | May cause damage to organs though prolonged or repeated exposure | Human | LOAEL 11 ug/dl blood | environmental exposure |
| LEAD | Ingestion | auditory system \| heart \| endocrine system \| vascular system | Not classified | Human | NOAEL Not available | environmental exposure |
| Nickel | Inhalation | respiratory system | Causes damage to organs through prolonged or repeated exposure | Rat | LOAEL 0.001 mg/l | 13 weeks |

**Aspiration Hazard**

| Name | Value |
|---|---|
| WHITE MINERAL OIL (PETROLEUM) | 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.

Dispose of waste product in a permitted industrial waste 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):** D008 (Lead)

## 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** |
|---|
| Not applicable |

| **Health Hazards** |
|---|
| Carcinogenicity |
| Reproductive toxicity |
| 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 |
|---|---|---|
| MANGANESE DIOXIDE (MANGANESE COMPOUNDS) | 1313-13-9 | 30 - 45 |
| LEAD | 7439-92-1 | Trade Secret <= 0.1 |
| LEAD (Lead) | 7439-92-1 | <= 0.1 |

### 15.2. State Regulations
Contact 3M for more information.

**California Proposition 65**

| Ingredient | C.A.S. No. | Listing |
|---|---|---|
| LEAD | 7439-92-1 | Female reproductive toxin |
| LEAD | 7439-92-1 | Male reproductive toxin |
| LEAD | 7439-92-1 | Carcinogen |
| LEAD | 7439-92-1 | Developmental Toxin |
| NICKEL (METALLIC) | 7440-02-0 | Carcinogen |

### 15.3. Chemical Inventories

The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

Contact 3M for more information.

### 15.4. International Regulations

Contact 3M for more information.

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

## SECTION 16: Other information

**NFPA Hazard Classification**
**Health:** 2 **Flammability:** 1 **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.

| | | | |
|---|---|---|---|
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