# Safety Data Sheet

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| | | | |
|---|---|---|---|
| **Document Group:** | 30-3794-2 | **Version Number:** | 3.02 |
| **Issue Date:** | 10/07/24 | **Supercedes Date:** | 12/06/22 |

**Product identifier**
3M™ Surface Pre-Treatment AC-131 BB

**ID Number(s):**

70-0052-0025-1, 70-0052-0026-9, 70-0052-0027-7, 70-0052-0028-5, 70-0052-0774-4, 70-0052-0890-8, 70-0052-2089-5, 70-0052-2090-3, 70-0052-2091-1, 70-0052-2092-9, 70-0052-2110-9, 70-0052-2111-7, 70-0052-2112-5, 70-0052-2113-3, 70-0052-2114-1, 70-0052-2115-8, 70-0052-2116-6, 70-0052-2117-4

7000048185, 7000048186, 7000048187, 7100114228, 7000048293, 7000048294, 7000048295, 7000048296, 7000048297, 7000048298, 7010371981, 7010333071, 7010291402, 7010371869, 7010333064, 7010371870, 7100025105, 7100066134

**Recommended use**
Metal Adhesion Promoter

**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:**

30-2023-7, 30-3792-6

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| | | | |
|---|---|---|---|
| **Document Group:** | 30-3792-6 | **Version Number:** | 7.00 |
| **Issue Date:** | 03/17/26 | **Supersedes Date:** | 10/07/24 |

## SECTION 1: Identification

**1.1. Product identifier**
3M™ Surface Pre-Treatment AC-131 BB Part B

**Product Identification Numbers**
LC-B100-1102-8, LC-B100-1102-9, LC-B100-1103-0, LC-B100-1103-1, LC-B100-1103-2, LC-B100-1507-5

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

**Recommended use**
Part B of Metal Adhesion Promoter, For industrial or professional use only.

**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 1.

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

**Symbols**
Corrosion |

**Pictograms**



**Hazard Statements**

Causes serious eye damage.

**Precautionary statements**

**Prevention:**
Wear eye and face protection.

**Response:**
IF IN EYES: Immediately call a POISON CENTER or doctor.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

## SECTION 3: Composition/information on ingredients

| Ingredient | C.A.S. No. | % by Wt |
|---|---|---|
| 3-(TRIMETHOXYSILYL)PROPYL GLYCIDYL ETHER | 2530-83-8 | 80 - 100 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:**
Wash with soap and water. 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**

Serious damage to the eyes (corneal cloudiness, severe pain, tearing, ulcerations, and significantly impaired or loss of vision).

**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 |

**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**
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. 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.

**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 water. 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. Avoid release to the environment. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.)

**7.2. Conditions for safe storage including any incompatibilities**
Store away from heat. Store away from oxidizing agents. Store away from amines.

## SECTION 8: Exposure controls/personal protection

**8.1. Control parameters**

**Occupational exposure limits**
No occupational exposure limit values exist for any of the components listed in Section 3 of this SDS.

**8.2. Exposure controls**

**8.2.1. Engineering controls**

No engineering controls required.

**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

**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

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

## SECTION 9: Physical and chemical properties

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

| | |
|---|---|
| **Physical state** | Liquid |
| **Color** | Colorless |
| **Odor** | Slight Turpentine |
| **Odor threshold** | *No Data Available* |
| **pH** | 3.5 [*Test Method:*Estimated] |
| **Melting point/Freezing point** | *No Data Available* |
| **Boiling point/Initial boiling point/Boiling range** | 120 ºC [@ 266.644 Pa ] |
| **Flash Point** | 135 ºC [*Test Method:*Closed Cup] |
| **Evaporation rate** | *No Data Available* |
| **Flammability** | Not Applicable |
| **Flammable Limits(LEL)** | *No Data Available* |
| **Flammable Limits(UEL)** | *No Data Available* |
| **Vapor Pressure** | 2 mmHg [@ 120 ºC] |
| **Relative Vapor Density** | 8.1 [@ 20 ºC ] [*Ref Std:*AIR=1] |
| **Density** | 1.07 g/ml |
| **Relative Density** | 1.07 [*Ref Std:*WATER=1] |
| **Water solubility** | Complete [*Details:*Reacts with water.] |
| **Solubility- non-water** | *No Data Available* |
| **Partition coefficient: n-octanol/ water** | *No Data Available* |
| **Autoignition temperature** | 231 ºC |
| **Decomposition temperature** | *No Data Available* |

| | |
|---|---|
| **Kinematic Viscosity** | *No Data Available* |
| **Volatile Organic Compounds** | 0 g/l [*Test Method:*calculated SCAQMD rule 443.1] |
| **Percent volatile** | 0 % weight |
| **VOC Less H2O & Exempt Solvents** | 0 g/l [*Test Method:*calculated SCAQMD rule 443.1] |
| **Molecular weight** | *No Data Available* |

| | |
|---|---|
| **Particle Characteristics** | *Not Applicable* |

## 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**
Heat

**10.5. Incompatible materials**
Strong oxidizing agents
Amines

**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.

**Skin Contact:**
May be harmful in contact with skin.
Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

**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.

**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 |
|---|---|---|---|
| 3-(TRIMETHOXYSILYL)PROPYL GLYCIDYL ETHER | Dermal | Rabbit | LD50 4,000 mg/kg |
| 3-(TRIMETHOXYSILYL)PROPYL GLYCIDYL ETHER | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 5.3 mg/l |
| 3-(TRIMETHOXYSILYL)PROPYL GLYCIDYL ETHER | Ingestion | Rat | LD50 7,010 mg/kg |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name | Species | Value |
|---|---|---|
| 3-(TRIMETHOXYSILYL)PROPYL GLYCIDYL ETHER | Rabbit | Mild irritant |

**Serious Eye Damage/Irritation**

| Name | Species | Value |
|---|---|---|
| 3-(TRIMETHOXYSILYL)PROPYL GLYCIDYL ETHER | Rabbit | Corrosive |

**Skin Sensitization**

| Name | Species | Value |
|---|---|---|
| 3-(TRIMETHOXYSILYL)PROPYL GLYCIDYL ETHER | Guinea pig | Not classified |

**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 |
|---|---|---|
| 3-(TRIMETHOXYSILYL)PROPYL GLYCIDYL ETHER | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| 3-(TRIMETHOXYSILYL)PROPYL GLYCIDYL ETHER | In vivo | Some positive data exist, but the data are not sufficient for classification |

**Carcinogenicity**

| Name | Route | Species | Value |
|---|---|---|---|
| 3-(TRIMETHOXYSILYL)PROPYL GLYCIDYL ETHER | Dermal | Mouse | Not carcinogenic |

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

| Name | Route | Value | Species | Test Result | Exposure Duration |
|---|---|---|---|---|---|
| 3-(TRIMETHOXYSILYL)PROPYL GLYCIDYL ETHER | Ingestion | Not classified for female reproduction | Rat | NOAEL 1,000 mg/kg/day | 1 generation |
| 3-(TRIMETHOXYSILYL)PROPYL GLYCIDYL ETHER | Ingestion | Not classified for male reproduction | Rat | NOAEL 1,000 mg/kg/day | 1 generation |

| | | | | | |
|---|---|---|---|---|---|
| 3-(TRIMETHOXYSILYL)PROPYL GLYCIDYL ETHER | Ingestion | Not classified for development | Rat | NOAEL 3,000 mg/kg/day | during organogenesis |

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**
For the component/components, either no data are currently available or the data are not sufficient for classification.

**Specific Target Organ Toxicity - repeated exposure**

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|---|---|---|---|---|---|---|
| 3-(TRIMETHOXYSILYL)PROPYL GLYCIDYL ETHER | Ingestion | heart | Not classified | Rat | NOAEL 1,000 mg/kg/day | 28 days |
| 3-(TRIMETHOXYSILYL)PROPYL GLYCIDYL ETHER | Ingestion | endocrine system | Not classified | Rat | NOAEL 1,000 mg/kg/day | 28 days |
| 3-(TRIMETHOXYSILYL)PROPYL GLYCIDYL ETHER | Ingestion | bone, teeth, nails, and/or hair | Not classified | Rat | NOAEL 1,000 mg/kg/day | 28 days |
| 3-(TRIMETHOXYSILYL)PROPYL GLYCIDYL ETHER | Ingestion | hematopoietic system | Not classified | Rat | NOAEL 1,000 mg/kg/day | 28 days |
| 3-(TRIMETHOXYSILYL)PROPYL GLYCIDYL ETHER | Ingestion | liver | Not classified | Rat | NOAEL 1,000 mg/kg/day | 28 days |
| 3-(TRIMETHOXYSILYL)PROPYL GLYCIDYL ETHER | Ingestion | immune system | Not classified | Rat | NOAEL 1,000 mg/kg/day | 28 days |
| 3-(TRIMETHOXYSILYL)PROPYL GLYCIDYL ETHER | Ingestion | nervous system | Not classified | Rat | NOAEL 1,000 mg/kg/day | 28 days |
| 3-(TRIMETHOXYSILYL)PROPYL GLYCIDYL ETHER | Ingestion | kidney and/or bladder | Not classified | Rat | NOAEL 1,000 mg/kg/day | 28 days |
| 3-(TRIMETHOXYSILYL)PROPYL GLYCIDYL ETHER | Ingestion | respiratory system | 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. 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** |
|---|
| Serious eye damage or eye irritation |

### 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:** 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.

| | | | |
|---|---|---|---|
| **Document Group:** | 30-3792-6 | **Version Number:** | 7.00 |
| **Issue Date:** | 03/17/26 | **Supersedes Date:** | 10/07/24 |

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|---|---|---|---|
| **Document Group:** | 30-2023-7 | **Version Number:** | 3.03 |
| **Issue Date:** | 10/07/24 | **Supercedes Date:** | 07/25/22 |

## SECTION 1: Identification

**1.1. Product identifier**
3M™ Surface Pre-Treatment AC-131 BB Part A

**Product Identification Numbers**
LC-B100-1102-2, LC-B100-1102-3, LC-B100-1102-4, LC-B100-1102-5, LC-B100-1102-6, LC-B100-1507-4, 41-4901-0227-8, 42-0044-2189-9

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

**Recommended use**
Part A of Metal Adhesion Promoter, For industrial or professional use only.

**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**
Not classified as hazardous according to OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**2.2. Label elements**
**Signal word**
Not applicable.

**Symbols**
Not applicable.

**Pictograms**
Not applicable.

## SECTION 3: Composition/information on ingredients

| Ingredient | C.A.S. No. | % by Wt |
|---|---|---|
| WATER | 7732-18-5 | 98 - 99 |
| ZIRCONIUM N-PROPOXIDE | 23519-77-9 | < 1 |
| ACETIC ACID | 64-19-7 | < 0.5 Trade Secret * |
| PROPYL ALCOHOL | 71-23-8 | < 0.5 |

*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:**
No need for first aid is anticipated. If symptoms develop, remove the affected person to fresh air. Get medical attention.

**Skin Contact:**
If exposed, wash with soap and water. If signs/symptoms develop, get medical attention.

**Eye Contact:**
If exposed, flush eyes with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms develop, get medical attention.

**If Swallowed:**
Do not induce vomiting. Rinse mouth. If you feel unwell, get medical attention.

**4.2. Most important symptoms and effects, both acute and delayed**
No critical symptoms or effects. 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 |

**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**
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. Observe precautions from other sections.

**6.2. Environmental precautions**

Avoid release to the environment.

**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. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with water. 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 release to the environment.

**7.2. Conditions for safe storage including any incompatibilities**
No special storage requirements.

## 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 |
|---|---|---|---|---|
| ZIRCONIUM COMPOUNDS | 23519-77-9 | ACGIH | TWA(as Zr):5 mg/m3;STEL(as Zr):10 mg/m3 | A4: Not class. as human carcin |
| ZIRCONIUM COMPOUNDS | 23519-77-9 | OSHA | TWA(as Zr):5 mg/m3 | |
| ACETIC ACID | 64-19-7 | ACGIH | TWA:10 ppm;STEL:15 ppm | |
| ACETIC ACID | 64-19-7 | OSHA | TWA:25 mg/m3(10 ppm) | |
| PROPYL ALCOHOL | 71-23-8 | ACGIH | TWA:100 ppm | A4: Not class. as human carcin |
| PROPYL ALCOHOL | 71-23-8 | OSHA | TWA:500 mg/m3(200 ppm) | |

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**
No engineering controls required.

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

**Eye/face protection**
None required.

**Skin/hand protection**
No chemical protective gloves are required.

**Respiratory protection**
None required.

## SECTION 9: Physical and chemical properties

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

| | |
|---|---|
| **Appearance** | |
| **Physical state** | Liquid |
| **Color** | Blue |
| **Odor** | Very Slight Vinegar |
| **Odor threshold** | *No Data Available* |
| **pH** | 3.5 - 4 |
| **Melting point** | *No Data Available* |
| **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** | *No Data Available* |
| **Vapor Density** | *No Data Available* |
| **Specific Gravity** | 1 [*Ref Std:*WATER=1] |
| **Solubility in Water** | Complete |
| **Solubility- non-water** | *No Data Available* |
| **Partition coefficient: n-octanol/ water** | *No Data Available* |
| **Autoignition temperature** | *Not Applicable* |
| **Decomposition temperature** | *No Data Available* |
| **Viscosity** | Approximately 1 centipoise - 10 centipoise [@ 20 ºC ] |
| **Molecular weight** | *Not Applicable* |
| **Volatile Organic Compounds** | 7.3 g/l [*Test Method:*calculated SCAQMD rule 443.1] |
| **Percent volatile** | *No Data Available* |
| **VOC Less H2O & Exempt Solvents** | 522.4 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**
None known.

**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:**
No health effects are expected.

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

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

**Ingestion:**
No known health effects.

**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 |
| ACETIC ACID | Dermal | Rabbit | LD50 1,060 mg/kg |
| ACETIC ACID | Inhalation-Vapor (4 hours) | Rat | LC50 11.4 mg/l |
| ACETIC ACID | Ingestion | Rat | LD50 3,310 mg/kg |
| PROPYL ALCOHOL | Dermal | Rabbit | LD50 4,000 mg/kg |
| PROPYL ALCOHOL | Inhalation-Vapor (4 hours) | Rat | LC50 > 34 mg/l |
| PROPYL ALCOHOL | Ingestion | Rat | LD50 estimated to be 2,000 - 5,000 mg/kg |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name | Species | Value |
|---|---|---|
| ACETIC ACID | Rabbit | Corrosive |
| PROPYL ALCOHOL | Rabbit | Minimal irritation |

**Serious Eye Damage/Irritation**

| Name | Species | Value |
|---|---|---|
| ZIRCONIUM N-PROPOXIDE | Professional judgement | Mild irritant |

| | | |
|---|---|---|
| ACETIC ACID | Rabbit | Corrosive |
| PROPYL ALCOHOL | Rabbit | Severe irritant |

**Skin Sensitization**

| Name | Species | Value |
|---|---|---|
| PROPYL ALCOHOL | Guinea pig | Not classified |

**Respiratory Sensitization**

| Name | Species | Value |
|---|---|---|
| ACETIC ACID | Human | Not classified |

**Germ Cell Mutagenicity**

| Name | Route | Value |
|---|---|---|
| ACETIC ACID | In Vitro | Not mutagenic |
| PROPYL ALCOHOL | In Vitro | Some positive data exist, but the data are not sufficient for classification |

**Carcinogenicity**

| Name | Route | Species | Value |
|---|---|---|---|
| ACETIC ACID | Dermal | Mouse | Some positive data exist, but the data are not sufficient for classification |
| ACETIC ACID | Ingestion | Rat | Some positive data exist, but the data are not sufficient for classification |
| PROPYL ALCOHOL | Ingestion | Rat | 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 |
|---|---|---|---|---|---|
| ACETIC ACID | Ingestion | Not classified for development | Rat | NOAEL 80 mg/kg/day | during gestation |
| PROPYL ALCOHOL | Inhalation | Not classified for male reproduction | Rat | NOAEL 8.6 mg/l | 6 weeks |
| PROPYL ALCOHOL | Inhalation | Not classified for development | Rat | NOAEL 8.6 mg/l | during gestation |

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|---|---|---|---|---|---|---|
| ZIRCONIUM N-PROPOXIDE | Inhalation | respiratory irritation | Not classified | | NOAEL Not available | |
| ACETIC ACID | Inhalation | respiratory system | Causes damage to organs | Human | NOAEL Not available | not applicable |
| ACETIC ACID | Inhalation | respiratory irritation | May cause respiratory irritation | Human | NOAEL Not available | occupational exposure |
| ACETIC ACID | Ingestion | blood \| kidney and/or bladder | Causes damage to organs | Human | NOAEL Not available | not applicable |
| PROPYL ALCOHOL | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Mouse | NOAEL 5 mg/l | 4 hours |
| PROPYL ALCOHOL | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Mouse | NOAEL Not available | |
| PROPYL ALCOHOL | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Professional judgeme | NOAEL Not available | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | nt | | |

**Specific Target Organ Toxicity - repeated exposure**

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|---|---|---|---|---|---|---|
| PROPYL ALCOHOL | Ingestion | hematopoietic system | Not classified | Rat | NOAEL 70 mg/kg/day | 83 weeks |
| PROPYL ALCOHOL | Ingestion | liver | Not classified | Rat | LOAEL 70 mg/kg/day | 83 weeks |

**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.

Prior to disposal, consult all applicable authorities and regulations to insure proper classification. Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Empty and clean product containers may be disposed as non-hazardous waste. Consult your specific regulations and service providers to determine available options and requirements.

**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 |
|---|

Not applicable

### 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:** 0 **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.

| | | | |
|---|---|---|---|
| **Document Group:** | 30-2023-7 | **Version Number:** | 3.03 |
| **Issue Date:** | 10/07/24 | **Supercedes Date:** | 07/25/22 |

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