



Safety Data Sheet

Copyright, 2016, 3M Company.

All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

| | | | |
|------------------------|-----------|-------------------------|----------|
| Document Group: | 30-4205-8 | Version Number: | 4.00 |
| Issue Date: | 05/24/16 | Supersedes Date: | 02/11/15 |

SECTION 1: Identification

1.1. Product identifier

3M™ Aerospace Sealant AC-350 B-2 PMFC

Product Identification Numbers

70-0052-0266-1

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: | Aerospace and Commercial Transportation Division |
| ADDRESS: | 3M Center, St. Paul, MN 55144-1000, USA |
| Telephone: | 1-888-3M HELPS (1-888-364-3577) |

1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

2.1. Hazard classification

Skin Sensitizer: Category 1.

Specific Target Organ Toxicity (repeated exposure): Category 1.

2.2. Label elements

Signal word

Danger

Symbols

Exclamation mark | Health Hazard |

Pictograms

**Hazard Statements**

May cause an allergic skin reaction.

Causes damage to organs through prolonged or repeated exposure:

nervous system |

respiratory system |

Precautionary Statements**Prevention:**

Do not breathe dust/fume/gas/mist/vapors/spray.

Wear protective gloves.

Do not eat, drink or smoke when using this product.

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

Response:

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

Get medical advice/attention if you feel unwell.

Disposal:

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

2.3. Hazards not otherwise classified

None.

8% of the mixture consists of ingredients of unknown acute oral toxicity.

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

SECTION 3: Composition/information on ingredients

| Ingredient | C.A.S. No. | % by Wt |
|-----------------------------|------------|--------------------------|
| POLYSULFIDE RUBBER | 68611-50-7 | 50 - 60 |
| CALCIUM CARBONATE | 471-34-1 | 10 - 15 |
| OXIDIZED POLYETHYLENE | 68441-17-8 | 10 - 15 |
| GROUND CORK | 61789-98-8 | 6 - 8 |
| HYDROGENATED TERPHENYL | 61788-32-7 | 1 - 5 |
| MANGANESE DIOXIDE | 1313-13-9 | 1 - 5 Trade Secret * |
| AMORPHOUS SILICA | 67762-90-7 | 0.5 - 3 |
| TITANIUM DIOXIDE | 13463-67-7 | 0.1 - 1 Trade Secret * |
| EPOXY RESIN | 25085-99-8 | 0.1 - 0.5 Trade Secret * |
| PHENOL-FORMALDEHYDE POLYMER | 9003-35-4 | 0.1 - 0.5 Trade Secret * |
| ZEOLITES | 1318-02-1 | 0.05 - 0.5 |
| SODIUM HYDROXIDE | 1310-73-2 | < 0.2 |
| FERBAM | 14484-64-1 | < 0.06 |

*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:

No need for first aid is anticipated.

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

| <u>Substance</u> | <u>Condition</u> |
|--------------------|-------------------|
| Formaldehyde | During Combustion |
| Carbon monoxide | During Combustion |
| Carbon dioxide | During Combustion |
| Oxides of Nitrogen | During Combustion |
| Oxides of Sulfur | During Combustion |

5.3. Special protective actions for fire-fighters

No special protective actions for fire-fighters are anticipated.

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.

6.3. Methods and material for containment and cleaning up

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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse.

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 |
|--------------------------------|------------|--------|--|--------------------------------|
| SODIUM HYDROXIDE | 1310-73-2 | CMRG | TWA:2 mg/m ³ | |
| SODIUM HYDROXIDE | 1310-73-2 | OSHA | TWA:2 mg/m ³ | |
| SODIUM HYDROXIDE | 1310-73-2 | ACGIH | CEIL:2 mg/m ³ | |
| MANGANESE COMPOUNDS | 1313-13-9 | OSHA | CEIL(as Mn):5 mg/m ³ | |
| MANGANESE, INORGANIC COMPOUNDS | 1313-13-9 | ACGIH | TWA(as Mn, inhalable fraction):0.1 mg/m ³ ;TWA(as Mn, respirable fraction):0.02 mg/m ³ | A4: Not class. as human carcin |
| Aluminum, insoluble compounds | 1318-02-1 | ACGIH | TWA(respirable fraction):1 mg/m ³ | A4: Not class. as human carcin |
| TITANIUM DIOXIDE | 13463-67-7 | OSHA | TWA(as total dust):15 mg/m ³ | |
| TITANIUM DIOXIDE | 13463-67-7 | CMRG | TWA(as respirable dust):5 mg/m ³ | |
| TITANIUM DIOXIDE | 13463-67-7 | ACGIH | TWA:10 mg/m ³ | A4: Not class. as human carcin |
| FERBAM | 14484-64-1 | OSHA | TWA(as total dust):15 mg/m ³ | |
| FERBAM | 14484-64-1 | ACGIH | TWA(inhalable fraction):5 mg/m ³ | A4: Not class. as human carcin |
| Limestone | 471-34-1 | OSHA | TWA(as total dust):15 mg/m ³ ;TWA(respirable fraction):5 mg/m ³ | |
| CALCIUM CARBONATE | 471-34-1 | CMRG | TWA:10 mg/m ³ ;STEL:20 mg/m ³ | |
| HYDROGENATED TERPHENYL | 61788-32-7 | ACGIH | TWA:0.5 ppm | |
| SILICA, AMORPHOUS | 67762-90-7 | OSHA | TWA concentration:0.8 | |

| | | | |
|------------------|------------|------|--|
| | | | mg/m3;TWA:20 millions of particles/cu. ft. |
| AMORPHOUS SILICA | 67762-90-7 | CMRG | CEIL: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:
 Safety Glasses with side shields

Skin/hand protection

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

If this product is used in a manner that presents a higher potential for exposure (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

| | |
|-------------------------------|---|
| General Physical Form: | Liquid |
| Odor, Color, Grade: | Sulphurous odor; Dark gray paste |
| Odor threshold | <i>No Data Available</i> |
| pH | <i>Not Applicable</i> |
| Melting point | <i>Not Applicable</i> |
| Boiling Point | <i>No Data Available</i> |
| Flash Point | >=200 °F [<i>Test Method: Closed Cup</i>] |
| Evaporation rate | <i>No Data Available</i> |

| | |
|---|---|
| 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 | 1.1 - 1.3 [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 |
| Volatile Organic Compounds | 2.0 g/l [Test Method: calculated SCAQMD rule 443.1] |
| VOC Less H2O & Exempt Solvents | 2.0 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

None known.

10.5. Incompatible materials

Reducing agents
Strong bases
Strong acids

10.6. Hazardous decomposition products

Substance

None known.

Condition

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:

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.

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.

Carcinogenicity:

| <u>Ingredient</u> | <u>CAS No.</u> | <u>Class Description</u> | <u>Regulation</u> |
|-------------------|----------------|-------------------------------|---|
| TITANIUM DIOXIDE | 13463-67-7 | Grp. 2B: Possible human carc. | International Agency for Research on Cancer |

Toxicological Data

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

Acute Toxicity

| <u>Name</u> | <u>Route</u> | <u>Species</u> | <u>Value</u> |
|------------------------|--------------------------------|----------------|---|
| Overall product | Dermal | | No data available; calculated ATE > 5,000 mg/kg |
| 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 |
| OXIDIZED POLYETHYLENE | Ingestion | Rat | LD50 > 2,500 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 |

| | | | |
|-----------------------------|--------------------------------|--------|---------------------|
| AMORPHOUS SILICA | Dermal | Rabbit | LD50 > 5,000 mg/kg |
| AMORPHOUS SILICA | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 0.691 mg/l |
| AMORPHOUS SILICA | Ingestion | Rat | LD50 > 5,110 mg/kg |
| TITANIUM DIOXIDE | Dermal | Rabbit | LD50 > 10,000 mg/kg |
| TITANIUM DIOXIDE | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 6.82 mg/l |
| TITANIUM DIOXIDE | Ingestion | Rat | LD50 > 10,000 mg/kg |
| EPOXY RESIN | Dermal | Rat | LD50 > 1,600 mg/kg |
| EPOXY RESIN | Ingestion | Rat | LD50 > 1,000 mg/kg |
| ZEOLITES | Dermal | Rabbit | LD50 > 2,000 mg/kg |
| ZEOLITES | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 4.57 mg/l |
| ZEOLITES | Ingestion | Rat | LD50 > 5,000 mg/kg |
| PHENOL-FORMALDEHYDE POLYMER | Dermal | Rat | LD50 > 2,000 mg/kg |
| PHENOL-FORMALDEHYDE POLYMER | Ingestion | Rat | LD50 > 2,900 mg/kg |
| FERBAM | Dermal | Rabbit | LD50 > 4,000 mg/kg |
| FERBAM | Ingestion | Rat | LD50 1,130 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| Name | Species | Value |
|-----------------------------|------------------------|---------------------------|
| POLYSULFIDE RUBBER | Rabbit | No significant irritation |
| CALCIUM CARBONATE | Rabbit | No significant irritation |
| OXIDIZED POLYETHYLENE | Professional judgement | No significant irritation |
| HYDROGENATED TERPHENYL | Rabbit | No significant irritation |
| AMORPHOUS SILICA | Rabbit | No significant irritation |
| TITANIUM DIOXIDE | Rabbit | No significant irritation |
| EPOXY RESIN | Rabbit | Mild irritant |
| ZEOLITES | Rabbit | No significant irritation |
| PHENOL-FORMALDEHYDE POLYMER | Human and animal | Mild irritant |
| SODIUM HYDROXIDE | Rabbit | Corrosive |
| FERBAM | Rabbit | No significant irritation |

Serious Eye Damage/Irritation

| Name | Species | Value |
|-----------------------------|------------------------|---------------------------|
| POLYSULFIDE RUBBER | Rabbit | No significant irritation |
| CALCIUM CARBONATE | Rabbit | No significant irritation |
| OXIDIZED POLYETHYLENE | Professional judgement | No significant irritation |
| HYDROGENATED TERPHENYL | Rabbit | No significant irritation |
| AMORPHOUS SILICA | Rabbit | No significant irritation |
| TITANIUM DIOXIDE | Rabbit | No significant irritation |
| EPOXY RESIN | Rabbit | Moderate irritant |
| ZEOLITES | Rabbit | Mild irritant |
| PHENOL-FORMALDEHYDE POLYMER | Human and animal | Moderate irritant |
| SODIUM HYDROXIDE | Rabbit | Corrosive |
| FERBAM | Rabbit | Severe irritant |

Skin Sensitization

| Name | Species | Value |
|-----------------------------|------------------|-----------------|
| POLYSULFIDE RUBBER | | Not sensitizing |
| HYDROGENATED TERPHENYL | Human | Not sensitizing |
| AMORPHOUS SILICA | Human and animal | Not sensitizing |
| TITANIUM DIOXIDE | Human and animal | Not sensitizing |
| EPOXY RESIN | Human and animal | Sensitizing |
| PHENOL-FORMALDEHYDE POLYMER | Human and animal | Sensitizing |
| SODIUM HYDROXIDE | Human | Not sensitizing |
| FERBAM | Guinea pig | Not sensitizing |

Respiratory Sensitization

| Name | Species | Value |
|-----------------------------|---------|--|
| EPOXY RESIN | Human | Some positive data exist, but the data are not sufficient for classification |
| PHENOL-FORMALDEHYDE POLYMER | Human | Some positive data exist, but the data are not sufficient for classification |

Germ Cell Mutagenicity

| Name | Route | Value |
|------------------------|----------|--|
| HYDROGENATED TERPHENYL | In vivo | Not mutagenic |
| AMORPHOUS SILICA | In Vitro | Not mutagenic |
| TITANIUM DIOXIDE | In Vitro | Not mutagenic |
| TITANIUM DIOXIDE | In vivo | Not mutagenic |
| EPOXY RESIN | In vivo | Not mutagenic |
| EPOXY RESIN | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| SODIUM HYDROXIDE | In Vitro | Not mutagenic |

Carcinogenicity

| Name | Route | Species | Value |
|------------------|---------------|-------------------------|--|
| AMORPHOUS SILICA | Not Specified | Mouse | Some positive data exist, but the data are not sufficient for classification |
| TITANIUM DIOXIDE | Ingestion | Multiple animal species | Not carcinogenic |
| TITANIUM DIOXIDE | Inhalation | Rat | Carcinogenic |
| EPOXY RESIN | Dermal | Mouse | Some positive data exist, but the data are not sufficient for classification |
| FERBAM | Ingestion | Rat | Not carcinogenic |

Reproductive Toxicity

Reproductive and/or Developmental Effects

| Name | Route | Value | Species | Test Result | Exposure Duration |
|------------------------|-----------|---|---------|---------------------|--------------------------------|
| CALCIUM CARBONATE | Ingestion | Not toxic to development | Rat | NOAEL 625 mg/kg/day | prematuring & during gestation |
| HYDROGENATED TERPHENYL | Ingestion | Not toxic to female reproduction | Rat | NOAEL 81 mg/kg/day | 2 generation |
| HYDROGENATED TERPHENYL | Ingestion | Not toxic to male reproduction | Rat | NOAEL 62 mg/kg/day | 2 generation |
| HYDROGENATED TERPHENYL | Ingestion | Some positive developmental data exist, | Rat | NOAEL 500 | 2 generation |

| | | | | | |
|------------------|-----------|--|--------|-----------------------|----------------------|
| | | but the data are not sufficient for classification | | mg/kg/day | |
| AMORPHOUS SILICA | Ingestion | Not toxic to female reproduction | Rat | NOAEL 509 mg/kg/day | 1 generation |
| AMORPHOUS SILICA | Ingestion | Not toxic to male reproduction | Rat | NOAEL 497 mg/kg/day | 1 generation |
| AMORPHOUS SILICA | Ingestion | Not toxic to development | Rat | NOAEL 1,350 mg/kg/day | during organogenesis |
| EPOXY RESIN | Ingestion | Not toxic to female reproduction | Rat | NOAEL 750 mg/kg/day | 2 generation |
| EPOXY RESIN | Ingestion | Not toxic to male reproduction | Rat | NOAEL 750 mg/kg/day | 2 generation |
| EPOXY RESIN | Dermal | Not toxic to development | Rabbit | NOAEL 300 mg/kg/day | during organogenesis |
| EPOXY RESIN | Ingestion | Not toxic to development | Rat | NOAEL 750 mg/kg/day | 2 generation |
| FERBAM | Ingestion | Not toxic to female reproduction | Rat | NOAEL 25 mg/kg/day | 3 generation |
| FERBAM | Ingestion | Not toxic to male reproduction | Rat | NOAEL 25 mg/kg/day | 3 generation |
| FERBAM | Ingestion | Some positive developmental data exist, but the data are not sufficient for classification | Rat | NOAEL 11 mg/kg/day | during organogenesis |

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 |
|-----------------------------|------------|------------------------|--|------------------|---------------------|-------------------|
| CALCIUM CARBONATE | Inhalation | respiratory system | All data are negative | 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 | |
| SODIUM HYDROXIDE | Inhalation | respiratory irritation | May cause respiratory irritation | Human | NOAEL Not available | |

Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|------------------------|------------|--|--|---------|---------------------|-----------------------|
| CALCIUM CARBONATE | Inhalation | respiratory system | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | occupational exposure |
| HYDROGENATED TERPHENYL | Inhalation | liver | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 0.5 mg/l | 90 days |
| HYDROGENATED TERPHENYL | Ingestion | endocrine system blood liver kidney and/or bladder | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 144 mg/kg/day | 14 weeks |
| AMORPHOUS SILICA | Inhalation | respiratory system silicosis | All data are negative | Human | NOAEL Not available | occupational exposure |
| TITANIUM DIOXIDE | Inhalation | respiratory system | Some positive data exist, but the data are not sufficient for classification | Rat | LOAEL 0.01 mg/l | 2 years |
| TITANIUM DIOXIDE | Inhalation | pulmonary fibrosis | All data are negative | Human | NOAEL Not available | occupational exposure |
| EPOXY RESIN | Dermal | liver | Some positive data exist, but the data are not sufficient for | Rat | NOAEL 1,000 | 2 years |

| | | | classification | | mg/kg/day | |
|------------------------------------|------------|--|--|-------|-----------------------------|--------------------------|
| EPOXY RESIN | Dermal | nervous system | All data are negative | 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 | All data are negative | Rat | NOAEL 1,000 mg/kg/day | 28 days |
| PHENOL- FORMALDEHYDE POLYMER | Inhalation | respiratory system | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | occupational exposure |

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): D005 (Barium), D006 (Cadmium), 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.

311/312 Hazard Categories:

Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - Yes

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

| <u>Ingredient</u> | <u>C.A.S. No</u> | <u>% by Wt</u> |
|---|------------------|----------------|
| MANGANESE DIOXIDE (MANGANESE COMPOUNDS) | 1313-13-9 | 1 - 5 |

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

The components of this product are in compliance with the chemical notification requirements of TSCA.

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.

| | | | |
|------------------------|-----------|-------------------------|----------|
| Document Group: | 30-4205-8 | Version Number: | 4.00 |
| Issue Date: | 05/24/16 | Supersedes Date: | 02/11/15 |

DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3M provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, 3M makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the SDS available directly from 3M

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