

Safety Data Sheet

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| Document Group: | 16-0856-1 | Version Number: | 4.00 |
|-----------------|-----------|------------------|----------|
| Issue Date: | 04/16/15 | Supercedes Date: | 07/09/14 |

Product identifier

3MTM Scotch-WeldTM Low Odor Acrylic Adhesive DP810 Black

ID Number(s):

62-2788-1430-6, 62-2788-1435-5, 62-2788-3530-1, 62-2788-3830-5

Recommended use

Adhesive

Supplier's details

| MANUFACTURER: | 3M |
|------------------------|---|
| DIVISION: | Industrial Adhesives and Tapes Division |
| ADDRESS: Telephone: | 3M Center, St. Paul, MN 55144-1000, USA 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:

16-0853-8, 16-0854-6

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| Document Group: | 16-0853-8 | Version Number: | 6.00 |
|-----------------|-----------|------------------|----------|
| Issue Date: | 04/16/15 | Supercedes Date: | 03/18/11 |

SECTION 1: Identification

1.1. Product identifier

3MTM Scotch-WeldTM Low Odor Acrylic Adhesive DP810 Black and Low Odor Acrylic Adhesive 810 Black, Part B

Product Identification Numbers

62-2788-7530-7, 62-2788-8730-2

1.2. Recommended use and restrictions on use

Recommended use Adhesive

| 1.3. Supplier's details | |
|-------------------------|---|
| MANUFACTURER: | 3M |
| DIVISION: | Industrial Adhesives and Tapes 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. Skin Sensitizer: Category 1.

2.2. Label elements Signal word Warning

Symbols Exclamation mark |

Pictograms



Hazard Statements Causes serious eye irritation. Causes skin irritation. May cause an allergic skin reaction.

Precautionary Statements

Prevention:

Avoid breathing dust/fume/gas/mist/vapors/spray. Wear protective gloves and eye/face protection. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

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 or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

Disposal:

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

2.3. Hazards not otherwise classified None.

SECTION 3: Composition/information on ingredients

| Ingredient | C.A.S. No. | % by Wt |
|---------------------------------|------------|------------------------|
| Phenoxyethyl Methacrylate | 10595-06-9 | 10 - 40 Trade Secret * |
| 2-Hydroxypropyl Methacrylate | 923-26-2 | 10 - 30 Trade Secret * |
| 2-Hydroxyethyl Methacrylate | 868-77-9 | 10 - 30 Trade Secret * |
| Acrylate Oligomer | 41637-38-1 | 5 - 20 Trade Secret * |
| Acrylonitrile-Butadiene Polymer | 9003-18-3 | 5 - 20 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:

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

Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

| <u>Substance</u> | Condition |
|-------------------------------|-------------------|
| Carbon monoxide | During Combustion |
| Carbon dioxide | During Combustion |
| Oxides of Nitrogen | During Combustion |
| Toxic Vapor, Gas, Particulate | 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. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid breathing of dust created by cutting, sanding, grinding or machining. For industrial or professional use only. 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. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Keep away from reactive metals (eg. Aluminum, zinc etc.) to avoid the formation of hydrogen gas that could create an explosion hazard.

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: 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 Fluoroelastomer Neoprene

Respiratory protection

None required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

General Physical Form: Specific Physical Form: Odor, Color, Grade: Odor threshold pH Liquid Paste Black, slight odor. *No Data Available Not Applicable*

| Melting point | Not Applicable |
|---|--|
| Boiling Point | >=211 °F |
| Flash Point | >=210 °F [<i>Test Method:</i> 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 | 1.07 g/ml |
| Density | 1.07 [<i>Ref Std:</i> WATER=1] |
| Specific Gravity | Slight (less than 10%) |
| Solubility in Water | No Data Available |
| Solubility- non-water | No Data Available |
| Partition coefficient: n-octanol/ water | No Data Available |
| Partition coefficient: n-octanol/ water | No Data Available |
| Autoignition temperature | No Data Available |
| Decomposition temperature | No Data Available |
| Viscosity | 20,000 centipoise [@ 73.4 °F] |
| Hazardous Air Pollutants | 40 % weight [<i>Test Method:</i> Calculated] |
| VOC Less H2O & Exempt Solvents | 3.1 g/l [<i>Details:</i> when used as intended with Part A] |
| VOC Less H2O & Exempt Solvents | 0.3 % [<i>Details:</i> when used as intended with Part A] |
| VOC Less H2O & Exempt Solvents | 319 g/l [<i>Details:</i> as supplied] |

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 may occur.

10.4. Conditions to avoid

Heat

Sparks and/or flames

Heat is generated during cure. Do not cure a mass larger than 50 grams in a confined space to prevent a premature exothermic reaction with production of intense heat and smoke.

10.5. Incompatible materials

Amines Strong oxidizing agents Reducing agents Reactive metals

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:

Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, dryness, cracking, blistering, and pain. Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye Contact:

Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired 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 |
|---------------------------------|-----------|-----------|---|
| Overall product | Ingestion | | No data available; calculated ATE > 5,000 mg/kg |
| Phenoxyethyl Methacrylate | Ingestion | | LD50 estimated to be 2,000 - 5,000 mg/kg |
| 2-Hydroxyethyl Methacrylate | Dermal | Rabbit | LD50 > 5,000 mg/kg |
| 2-Hydroxyethyl Methacrylate | Ingestion | Rat | LD50 5,564 mg/kg |
| Acrylonitrile-Butadiene Polymer | Dermal | Rabbit | LD50 > 15,000 mg/kg |
| 2-Hydroxypropyl Methacrylate | Ingestion | Rat | LD50 > 2,000 mg/kg |
| Acrylonitrile-Butadiene Polymer | Ingestion | Rat | LD50 > 30,000 mg/kg |
| Acrylate Oligomer | Dermal | Professio | LD50 estimated to be $> 5,000 \text{ mg/kg}$ |
| | | nal | |
| | | judgeme | |
| | | nt | |
| Acrylate Oligomer | Ingestion | Rat | LD50 > 2,000 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| Name | Species | Value |
|---------------------------------|-----------|---------------------------|
| | | |
| Phenoxyethyl Methacrylate | similar | Irritant |
| | compoun | |
| | ds | |
| 2-Hydroxyethyl Methacrylate | Rabbit | Minimal irritation |
| Acrylonitrile-Butadiene Polymer | Professio | No significant irritation |
| | nal | |
| | judgeme | |
| | nt | |

Serious Eye Damage/Irritation

| Name | Species | Value |
|---------------------------------|-----------|---------------------------|
| Phenoxyethyl Methacrylate | similar | Severe irritant |
| | compoun | |
| | ds | |
| 2-Hydroxyethyl Methacrylate | Rabbit | Moderate irritant |
| Acrylonitrile-Butadiene Polymer | Professio | No significant irritation |
| | nal | |
| | judgeme | |
| | nt | |

Skin Sensitization

| Name | Species | Value |
|-----------------------------|---------|-----------------|
| 2-Hydroxyethyl Methacrylate | Human | Sensitizing |
| | and | |
| | animal | |
| Acrylate Oligomer | Guinea | Not sensitizing |
| | pig | |

Respiratory Sensitization

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

Germ Cell Mutagenicity

| Name | Route | Value |
|-----------------------------|----------|--|
| | | |
| Phenoxyethyl Methacrylate | In Vitro | Not mutagenic |
| 2-Hydroxyethyl Methacrylate | In vivo | Not mutagenic |
| 2-Hydroxyethyl Methacrylate | In Vitro | Some positive data exist, but the data are not |
| | | sufficient for classification |
| Acrylate Oligomer | In Vitro | Not mutagenic |

Carcinogenicity

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

Reproductive Toxicity

Reproductive and/or Developmental Effects

| Name | Route | Value | Species | Test Result | Exposure Duration |
|-----------------------------|-----------|----------------------------------|---------|-----------------------------|------------------------------------|
| 2-Hydroxyethyl Methacrylate | Ingestion | Not toxic to female reproduction | Rat | NOAEL 1,000 mg/kg/day | premating & during gestation |
| 2-Hydroxyethyl Methacrylate | Ingestion | Not toxic to male reproduction | Rat | NOAEL 1,000 mg/kg/day | 49 days |
| 2-Hydroxyethyl Methacrylate | Ingestion | Not toxic to development | Rat | NOAEL 1,000 mg/kg/day | premating & during gestation |

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

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

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.

311/312 Hazard Categories:

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

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

| <u>Ingredient</u> | C.A.S. No | <u>% by Wt</u> |
|-----------------------------------|------------|----------------|
| Phenoxyethyl Methacrylate (GLYCOL | 10595-06-9 | 10 - 40 |
| ETHERS) | | |

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.

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|-----------------|-----------|------------------|----------|
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| Document Group: | 16-0854-6 | Version Number: | 6.00 |
|-----------------|-----------|------------------|----------|
| Issue Date: | 04/16/15 | Supercedes Date: | 04/20/12 |

SECTION 1: Identification

1.1. Product identifier

3MTM Scotch-WeldTM Low Odor Acrylic Adhesive DP810 Black and Low Odor Acrylic Adhesive 810 Black, Part A

Product Identification Numbers

62-2888-7530-5, 62-2888-8730-0

1.2. Recommended use and restrictions on use

Recommended use Adhesive

| 1.3. Supplier's details | |
|-------------------------|---|
| MANUFACTURER: | 3M |
| DIVISION: | Industrial Adhesives and Tapes 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. Skin Corrosion/Irritation: Category 1C. Skin Sensitizer: Category 1. Specific Target Organ Toxicity (repeated exposure): Category 1.

2.2. Label elements Signal word Danger

Symbols Corrosion | Exclamation mark | Health Hazard |

Pictograms



Hazard Statements Causes severe skin burns and eye damage. 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, protective clothing, and eye/face protection. 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 INHALED: Remove person to fresh air and keep comfortable for breathing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Get medical advice/attention if you feel unwell.

Storage:

Store locked up.

Disposal:

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

2.3. Hazards not otherwise classified

May cause chemical gastrointestinal burns.

SECTION 3: Composition/information on ingredients

| Ingredient | C.A.S. No. | % by Wt |
|---------------------------------|------------|------------------------|
| Phenoxyethyl Methacrylate | 10595-06-9 | 10 - 40 Trade Secret * |
| 2-Hydroxypropyl Methacrylate | 923-26-2 | 10 - 30 Trade Secret * |
| 2-Hydroxyethyl Methacrylate | 868-77-9 | 10 - 30 Trade Secret * |
| Acrylate Oligomer | 41637-38-1 | 5 - 20 Trade Secret * |
| Acrylonitrile-Butadiene Polymer | 9003-18-3 | 5 - 20 Trade Secret * |
| Cumene Hydroperoxide | 80-15-9 | 3 - 7 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 flush with large amounts of water for at least 15 minutes. Remove contaminated clothing. Get immediate medical attention. Wash clothing before reuse.

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. Do not induce vomiting. Get immediate 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

Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

| <u>Substance</u> | Condition |
|-------------------------------|-------------------|
| Carbon monoxide | During Combustion |
| Carbon dioxide | During Combustion |
| Oxides of Nitrogen | During Combustion |
| Toxic Vapor, Gas, Particulate | 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. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid breathing of dust created by cutting, sanding, grinding or machining. For industrial or professional use only. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Keep away from reactive metals (eg. Aluminum, zinc etc.) to avoid the formation of hydrogen gas that could create an explosion hazard.

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

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. Age | ncy Limit type | Additional Comments |
|----------------------------------|-------------------------------|--------------------|----------------------------|
| Cumene Hydroperoxide | 80-15-9 AIH | TWA:6 mg/m3(1 ppm) | Skin Notation |
| ACCIII American Conference of Co | warmmantal Industrial Uracian | ista | |

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: 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.

Gloves made from the following material(s) are recommended: Butyl Rubber Fluoroelastomer

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

| in mormation on busic physical and chemical pro | |
|---|--|
| General Physical Form: | Liquid |
| Specific Physical Form: | Paste |
| Odor, Color, Grade: | White, low odor. |
| Odor threshold | No Data Available |
| рН | Not Applicable |
| Melting point | Not Applicable |
| Boiling Point | 80 °C |
| Flash Point | 219 °F [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 |
| Density | 1.07 g/ml |
| Specific Gravity | 1.07 [<i>Ref Std:</i> WATER=1] |
| Solubility in Water | Slight (less than 10%) |
| 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 | 20,000 centipoise [@ 77 °F] |
| Hazardous Air Pollutants | < 40 % weight [Test Method: Calculated] |
| VOC Less H2O & Exempt Solvents | 3.1 g/l [Details: when used as intended with Part B] |
| VOC Less H2O & Exempt Solvents | 0.3 % [Details: when used as intended with Part B] |
| VOC Less H2O & Exempt Solvents | 349 g/l [<i>Test Method:</i> tested per EPA method 24] [<i>Details:</i> as supplied] |

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 may occur.

10.4. Conditions to avoid

Heat Sparks and/or flames

Avoid curing large quantities of material to prevent a premature reaction (exotherm) with production of intense heat and smoke.

10.5. Incompatible materials

Amines Strong oxidizing agents Reactive metals Reducing agents

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:

May be harmful if inhaled. Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May cause additional health effects (see below).

Skin Contact:

Corrosive (Skin Burns): Signs/symptoms may include localized redness, swelling, itching, intense pain, blistering, ulceration, and tissue destruction.

Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

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:

May be harmful if swallowed.

Gastrointestinal Corrosion: Signs/symptoms may include severe mouth, throat and abdominal pain; nausea; vomiting; and diarrhea; blood in the feces and/or vomitus may also be seen.

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.

Toxicological Data

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

Acute Toxicity

| Name | Route | Species | Value |
|---------------------------------|-------------|-----------|---|
| Overall product | Dermal | | No data available; calculated ATE > 5,000 mg/kg |
| Overall product | Inhalation- | | No data available; calculated ATE 20 - 50 mg/l |
| • | Vapor(4 hr) | | |
| Overall product | Ingestion | | No data available; calculated ATE 2,000 - 5,000 |
| | _ | | mg/kg |
| Phenoxyethyl Methacrylate | Ingestion | | LD50 estimated to be 2,000 - 5,000 mg/kg |
| 2-Hydroxyethyl Methacrylate | Dermal | Rabbit | LD50 > 5,000 mg/kg |
| 2-Hydroxyethyl Methacrylate | Ingestion | Rat | LD50 5,564 mg/kg |
| Acrylonitrile-Butadiene Polymer | Dermal | Rabbit | LD50 > 15,000 mg/kg |
| 2-Hydroxypropyl Methacrylate | Ingestion | Rat | LD50 > 2,000 mg/kg |
| Acrylonitrile-Butadiene Polymer | Ingestion | Rat | LD50 > 30,000 mg/kg |
| Acrylate Oligomer | Dermal | Professio | LD50 estimated to be $> 5,000 \text{ mg/kg}$ |
| | | nal | |
| | | judgeme | |
| | | nt | |
| Acrylate Oligomer | Ingestion | Rat | LD50 > 2,000 mg/kg |
| Cumene Hydroperoxide | Dermal | Rat | LD50 500 mg/kg |
| Cumene Hydroperoxide | Inhalation- | Rat | LC50 1.4 mg/l |
| | Vapor (4 | | |
| | hours) | | |
| Cumene Hydroperoxide | Ingestion | Rat | LD50 382 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| Name | Species | Value |
|---------------------------------|-----------|---------------------------|
| | | |
| Phenoxyethyl Methacrylate | similar | Irritant |
| | compoun | |
| | ds | |
| 2-Hydroxyethyl Methacrylate | Rabbit | Minimal irritation |
| Acrylonitrile-Butadiene Polymer | Professio | No significant irritation |
| | nal | |
| | judgeme | |
| | nt | |
| Cumene Hydroperoxide | Rabbit | Corrosive |

Serious Eye Damage/Irritation

| Name | Species | Value |
|---------------------------|---------|-----------------|
| Phenoxyethyl Methacrylate | similar | Severe irritant |
| | compoun | |
| | ds | |

| 2-Hydroxyethyl Methacrylate | Rabbit | Moderate irritant |
|---------------------------------|-----------|---------------------------|
| Acrylonitrile-Butadiene Polymer | Professio | No significant irritation |
| | nal | |
| | judgeme | |
| | nt | |
| Cumene Hydroperoxide | Rabbit | Corrosive |

Skin Sensitization

| Name | Species | Value |
|-----------------------------|---------|-----------------|
| 2-Hydroxyethyl Methacrylate | Human | Sensitizing |
| | and | |
| | animal | |
| Acrylate Oligomer | Guinea | Not sensitizing |
| | pig | |

Respiratory Sensitization

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

Germ Cell Mutagenicity

| Name | Route | Value |
|-----------------------------|----------|--|
| | | |
| Phenoxyethyl Methacrylate | In Vitro | Not mutagenic |
| 2-Hydroxyethyl Methacrylate | In vivo | Not mutagenic |
| 2-Hydroxyethyl Methacrylate | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Acrylate Oligomer | In Vitro | Not mutagenic |
| Cumene Hydroperoxide | In vivo | Not mutagenic |
| Cumene Hydroperoxide | In Vitro | Some positive data exist, but the data are not sufficient for classification |

Carcinogenicity

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

Reproductive Toxicity

Reproductive and/or Developmental Effects

| Name | Route | Value | Species | Test Result | Exposure Duration |
|-----------------------------|-----------|----------------------------------|---------|-----------------------------|------------------------------------|
| 2-Hydroxyethyl Methacrylate | Ingestion | Not toxic to female reproduction | Rat | NOAEL 1,000 mg/kg/day | premating & during gestation |
| 2-Hydroxyethyl Methacrylate | Ingestion | Not toxic to male reproduction | Rat | NOAEL 1,000 mg/kg/day | 49 days |
| 2-Hydroxyethyl Methacrylate | Ingestion | Not toxic to development | Rat | NOAEL 1,000 mg/kg/day | premating & during gestation |

Target Organ(s)

Specific Target Organ Toxicity - single exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|----------------------|------------|--------------------------------------|-----------------------------------|---------|------------------------|-----------------------|
| Cumene Hydroperoxide | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | occupational exposure |
| Cumene Hydroperoxide | Inhalation | respiratory irritation | May cause respiratory irritation | Human | NOAEL Not available | occupational exposure |

Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|----------------------|------------|--|--|---------|-------------------|----------------------|
| Cumene Hydroperoxide | Inhalation | nervous system respiratory system | Causes damage to organs through prolonged or repeated | Rat | LOAEL 0.2 mg/l | 7 days |

| | | | exposure | | | |
|----------------------|------------|--|--|-----|--------------------|---------|
| Cumene Hydroperoxide | Inhalation | heart liver kidney and/or bladder | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 0.03 mg/l | 90 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. If no other disposal options are available, waste product that has been completely cured or polymerized may be placed in a landfill properly designed for industrial waste. 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.

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):

| Ingredient | C.A.S. No | <u>% by Wt</u> |
|-----------------------------------|------------|----------------|
| Cumene Hydroperoxide | 80-15-9 | 3 - 7 |
| Phenoxyethyl Methacrylate (GLYCOL | 10595-06-9 | 10 - 40 |
| ETHERS) | | |

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: 3 Flammability: 1 Instability: 1 Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

| Document Group: | 16-0854-6 | Version Number: | 6.00 |
|-----------------|-----------|------------------|----------|
| Issue Date: | 04/16/15 | Supercedes Date: | 04/20/12 |

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