

Safety Data Sheet

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Document Group:	11-2403-1	Version Number:	17.00
Issue Date:	11/07/19	Supercedes Date:	04/03/19

Product identifier

3M(TM) Scotch-Weld(TM) Epoxy Adhesive DP100NS Translucent

ID Number(s):

62-3265-1430-4, 62-3265-1431-2, 62-3265-1435-3, 62-3265-1436-1, 62-3265-3530-9, 62-3265-3830-3

7100076484, 7010367273, 7100082554, 7100014024, 7100148744, 7010412191

Recommended use

Structural 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:

11-2401-5, 11-2402-3

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Document Group:	11-2401-5	Version Number:	19.00
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SECTION 1: Identification

1.1. Product identifier

3M(TM) Scotch-Weld(TM) Epoxy Adhesive DP100NS Translucent, Part B

Product Identification Numbers DP-100

1.2. Recommended use and restrictions on use

Recommended use Structural 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 2. Skin Sensitizer: Category 1. Reproductive Toxicity: Category 1B. Germ Cell Mutagenicity: Category 2.

2.2. Label elements

Signal word Danger

Symbols

Corrosion | Exclamation mark | Health Hazard |

Pictograms



Hazard Statements Causes serious eye damage. Causes skin irritation. May cause an allergic skin reaction. May damage fertility or the unborn child. Suspected of causing genetic defects.

Precautionary Statements

Prevention:

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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 ON SKIN: Wash with plenty of soap and water. Immediately call a POISON CENTER or doctor/physician. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. IF exposed or concerned: Get medical advice/attention.

Storage:

Store locked up.

Disposal:

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

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Epoxy Resin 1	25068-38-6	85 - 94 Trade Secret *
Epoxy Resin 2	30499-70-8	5 - 10 Trade Secret *
Amorphous Silica	67762-90-7	1 - 5 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 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

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>
Aldehydes	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Hydrogen Chloride	During Combustion
Ketones	During Combustion

5.3. Special protective actions for fire-fighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible.

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. 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.) Use personal protective equipment (gloves, respirators, etc.) as required.

7.2. Conditions for safe storage including any incompatibilities

Store away from acids. Store away from oxidizing agents.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
SILICA, AMORPHOUS	67762-90-7	OSHA	TWA concentration:0.8	
			mg/m3;TWA:20 millions of	
			particles/cu. ft.	

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. 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

Appearance	
Physical state	Liquid
Color	Light Straw
Specific Physical Form:	Viscous
Odor	Epoxy
Odor threshold	No Data Available
рН	Not Applicable
Melting point	No Data Available
Boiling Point	Not Applicable
Flash Point	>=240 °C [<i>Test Method</i> :Closed Cup] [<i>Details</i> :Estimated]
Evaporation rate	Not Applicable
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	Not Applicable
Flammable Limits(UEL)	Not Applicable
Vapor Pressure	$\leq = 0.03 \text{ mmHg} [@, 25 °C]$
Vapor Density	Not Applicable
Density	1.18 g/ml
Specific Gravity	1.18 [<i>Ref Std</i> :WATER=1]
Solubility in Water	Insoluble
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	90,000 - 150,000 centipoise [@, 73.4 °F] [Details: MITS data]
Hazardous Air Pollutants	0 % weight
Molecular weight	No Data Available
VOC Less H2O & Exempt Solvents	0 g/l [<i>Test Method</i> :calculated SCAQMD rule 443.1]
VOC Less H2O & Exempt Solvents	[<i>Details</i> :when used as intended with Part A] 0 g/l [<i>Test Method</i> :calculated SCAQMD rule 443.1] [<i>Details</i> :as supplied]
VOC Less H2O & Exempt Solvents	0 % [<i>Test Method</i> :calculated per CARB title 2] [<i>Details</i> :when used as intended with Part A]

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat 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.

Condition

10.5. Incompatible materials Strong acids Strong oxidizing agents

10.6. Hazardous decomposition products

<u>Substance</u>

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

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

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

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

Inhalation:

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

May cause additional health effects (see below).

Skin Contact:

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

May cause additional health effects (see below).

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.

May cause additional health effects (see below).

Additional Health Effects:

Reproductive/Developmental Toxicity:

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Genotoxicity:

Genotoxicity and Mutagenicity: May interact with genetic material and possibly alter gene expression.

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
Epoxy Resin 1	Dermal	Rat	LD50 > 1,600 mg/kg
Epoxy Resin 1	Ingestion	Rat	LD50 > 1,000 mg/kg
Epoxy Resin 2	Dermal	Rat	LD50 > 3,170 mg/kg
Epoxy Resin 2	Ingestion	Rat	LD50 3,398 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

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Overall product	In vitro	Irritant
	data	
Epoxy Resin 1	Rabbit	Mild irritant
Epoxy Resin 2	Rabbit	Corrosive
Amorphous Silica	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Epoxy Resin 1	Rabbit	Moderate irritant
Epoxy Resin 2	Rabbit	Corrosive
Amorphous Silica	Rabbit	No significant irritation

Skin Sensitization

Name	Species	Value
Epoxy Resin 1	Human	Sensitizing
	and	
	animal	
Epoxy Resin 2	similar	Sensitizing
	compoun	
	ds	
Amorphous Silica	Human	Not classified
	and	
	animal	

Respiratory Sensitization

Name	Species	Value
Epoxy Resin 1	Human	Not classified

Germ Cell Mutagenicity

Name	Route	Value
Epoxy Resin 1	In vivo	Not mutagenic
Epoxy Resin 1	In Vitro	Some positive data exist, but the data are not
		sufficient for classification
Epoxy Resin 2	In Vitro	Some positive data exist, but the data are not
		sufficient for classification
Epoxy Resin 2	In vivo	Mutagenic
Amorphous Silica	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Epoxy Resin 1	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Amorphous Silica	Not Specified	Mouse	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Epoxy Resin 1	Ingestion	Not classified for female reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
Epoxy Resin 1	Ingestion	Not classified for male reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
Epoxy Resin 1	Dermal	Not classified for development	Rabbit	NOAEL 300 mg/kg/day	during organogenesi s
Epoxy Resin 1	Ingestion	Not classified for development	Rat	NOAEL 750 mg/kg/day	2 generation
Epoxy Resin 2	Ingestion	Not classified for female reproduction	Rat	NOAEL 100 mg/kg/day	premating into lactation
Epoxy Resin 2	Ingestion	Not classified for development	Rat	NOAEL 100 mg/kg/day	premating into lactation
Epoxy Resin 2	Ingestion	Toxic to male reproduction	Rat	NOAEL 100 mg/kg/day	14 days
Amorphous Silica	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Amorphous Silica	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Amorphous Silica	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesi s

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure
						Duration
Epoxy Resin 2	Inhalation	respiratory irritation	Some positive data exist, but the	similar	NOAEL Not	
			data are not sufficient for	health	available	
			classification	hazards		

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Epoxy Resin 1	Dermal	liver	Not classified	Rat	NOAEL	2 years

Epoxy Resin 1	Dermal	nervous system	Not classified	Rat	1,000 mg/kg/day NOAEL 1,000 mg/kg/day	13 weeks
Epoxy Resin 1	Ingestion	auditory system heart endocrine system hematopoietic system liver eyes kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days
Epoxy Resin 2	Ingestion	heart skin endocrine system gastrointestinal tract bone, teeth, nails, and/or hair hematopoietic system liver immune system muscles nervous system eyes kidney and/or bladder respiratory system vascular system	Not classified	Rat	NOAEL 300 mg/kg/day	43 days
Amorphous Silica	Inhalation	respiratory system silicosis	Not classified	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): 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	
Germ cell mutagenicity	
Reproductive toxicity	

Respiratory or Skin Sensitization

Serious eye damage or eye irritation

Skin Corrosion or 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: 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.

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Issue Date:	01/14/19	Supercedes Date:	08/13/18

SECTION 1: Identification

1.1. Product identifier

3M(TM) Scotch-Weld(TM) Epoxy Adhesive DP100NS Translucent, Part A

Product Identification Numbers DP-100

1.2. Recommended use and restrictions on use

Recommended use Accelerator for 2-part epoxy adhesive, Structural 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% of the mixture consists of ingredients of unknown acute oral toxicity.3% of the mixture consists of ingredients of unknown acute dermal toxicity.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Polypropyleneglycoltrimercaptanether	72244-98-5	60 - 80 Trade Secret *
Hydrogenated Terphenyl	61788-32-7	5 - 20 Trade Secret *
2,4,6-Tris((dimethylamino)methyl)phenol	90-72-2	5 - 15 Trade Secret *
Amorphous Silica	67762-90-7	1 - 5 Trade Secret *
bis[(Dimethylamino)methyl]Phenol	71074-89-0	< 3 Trade Secret *
Polyphenyls, partially hydrogenated	68956-74-1	< 3 Trade Secret *
Organosilane	4420-74-0	< 0.5 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

None inherent in this product.

Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Hydrogen Sulfide	During Combustion
Oxides of Nitrogen	During Combustion
Oxides of Sulfur	During Combustion

5.3. Special protective actions for fire-fighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions

on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid breathing dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.)

7.2. Conditions for safe storage including any incompatibilities

Store away from acids. Store away from oxidizing agents.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
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.	

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

OSHA : United States Department of Labor - Occupational Safety and Health Administration

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

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

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 and particulates

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

SECTION 9: Physical and chemical properties

Specific Physical Form: Odor, Color, Grade: Odor threshold bH Melting point Boiling Point Flash Point Evaporation rate	Viscous Light amber, strong mercaptan odor No Data Available Not Applicable Not Applicable >=149 °C [Test Method:Estimated]
Ddor threshold bH Melting point Boiling Point Flash Point	No Data Available Not Applicable Not Applicable Not Applicable >=149 °C [Test Method:Estimated]
oH Melting point Boiling Point Flash Point	Not Applicable Not Applicable Not Applicable >=149 °C [Test Method:Estimated]
Melting point Boiling Point Flash Point	Not Applicable Not Applicable >=149 °C [Test Method:Estimated]
Boiling Point Flash Point	Not Applicable >=149 °C [Test Method:Estimated]
Flash Point	>=149 °C [<i>Test Method</i> :Estimated]
Evaporation rate	
	Not Applicable
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	Not Applicable
Flammable Limits(UEL)	Not Applicable
Vapor Pressure	<=0.02 mmHg [@ 20 °C]
Vapor Density	Not Applicable
Density	1.15 g/ml
Specific Gravity	1.15 [<i>Ref Std</i> :WATER=1]
Solubility in Water	Negligible
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	50,000 - 85,000 centipoise
Hazardous Air Pollutants	0 % weight [<i>Test Method</i> :Calculated]
Molecular weight	No Data Available
VOC Less H2O & Exempt Solvents	0 g/l [Test Method:calculated SCAQMD rule 443.1]
-	[Details: when used as intended with Part B]
VOC Less H2O & Exempt Solvents	5 g/l [Test Method:calculated SCAQMD rule 443.1] [Details:
-	supplied]
OC Less H2O & Exempt Solvents	0 % [Test Method:calculated per CARB title 2] [Details:wher

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat 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.

Condition

10.5. Incompatible materials Strong oxidizing agents Strong acids

10.6. Hazardous decomposition products

<u>Substance</u>

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

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

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

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

Inhalation:

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

Skin Contact:

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:

May be harmful if swallowed.

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	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE2,000 - 5,000 mg/kg
Polypropyleneglycoltrimercaptanether	Dermal	Rabbit	LD50 > 10,200 mg/kg
Polypropyleneglycoltrimercaptanether	Ingestion	Rat	LD50 2,600 mg/kg

Hydrogenated Terphenyl	Dermal	Rabbit	LD50 6,800 mg/kg
Hydrogenated Terphenyl	Inhalation-	Rat	LC50 > 11.1 mg/l
	Dust/Mist		-
	(4 hours)		
Hydrogenated Terphenyl	Ingestion	Rat	LD50 > 10,000 mg/kg
2,4,6-Tris((dimethylamino)methyl)phenol	Dermal	Rat	LD50 1,280 mg/kg
2,4,6-Tris((dimethylamino)methyl)phenol	Ingestion	Rat	LD50 1,000 mg/kg
Amorphous Silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
Amorphous Silica	Inhalation-	Rat	LC50 > 0.691 mg/l
	Dust/Mist		
	(4 hours)		
Amorphous Silica	Ingestion	Rat	LD50 > 5,110 mg/kg
bis[(Dimethylamino)methyl]Phenol	Ingestion		LD50 estimated to be 300 - 2,000 mg/kg
Organosilane	Dermal	Rabbit	LD50 2,270 mg/kg
Organosilane	Ingestion	Rat	LD50 770 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Overall product	In vitro	Irritant
	data	
Polypropyleneglycoltrimercaptanether	Rabbit	No significant irritation
Hydrogenated Terphenyl	Rabbit	No significant irritation
2,4,6-Tris((dimethylamino)methyl)phenol	Rabbit	Corrosive
Amorphous Silica	Rabbit	No significant irritation
bis[(Dimethylamino)methyl]Phenol	similar	Corrosive
	compoun	
	ds	
Organosilane	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Overall product	In vitro data	Severe irritant
Polypropyleneglycoltrimercaptanether	Rabbit	Mild irritant
Hydrogenated Terphenyl	Rabbit	No significant irritation
2,4,6-Tris((dimethylamino)methyl)phenol	Rabbit	Corrosive
Amorphous Silica	Rabbit	No significant irritation
bis[(Dimethylamino)methyl]Phenol	similar	Corrosive
	compoun	
	ds	
Organosilane	Rabbit	No significant irritation

Skin Sensitization

Name	Species	Value
Polypropyleneglycoltrimercaptanether	Mouse	Sensitizing
Hydrogenated Terphenyl	Human	Not classified
2,4,6-Tris((dimethylamino)methyl)phenol	Guinea	Not classified
	pig	
Amorphous Silica	Human	Not classified
	and	
	animal	
Organosilane	Guinea	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

Polypropyleneglycoltrimercaptanether	In Vitro	Not mutagenic
Hydrogenated Terphenyl	In vivo	Not mutagenic
2,4,6-Tris((dimethylamino)methyl)phenol	In Vitro	Not mutagenic
Amorphous Silica	In Vitro	Not mutagenic
Organosilane	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value	
Amorphous Silica	Not	Mouse	Some positive data exist, but the data are not	
	Specified		sufficient for classification	

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Hydrogenated Terphenyl	Ingestion	Not classified for female reproduction	Rat	NOAEL 81 mg/kg/day	2 generation
Hydrogenated Terphenyl	Ingestion	Not classified for male reproduction	Rat	NOAEL 62 mg/kg/day	2 generation
Hydrogenated Terphenyl	Ingestion	Not classified for development	Rat	NOAEL 500 mg/kg/day	2 generation
Amorphous Silica	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Amorphous Silica	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Amorphous Silica	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesi s

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
2,4,6-	Inhalation	respiratory irritation	Some positive data exist, but the		NOAEL Not	
Tris((dimethylamino)meth			data are not sufficient for		available	
yl)phenol			classification			

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Polypropyleneglycoltrimer captanether	Ingestion	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 75 mg/kg/day	90 days
Polypropyleneglycoltrimer captanether	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 250 mg/kg/day	90 days
Polypropyleneglycoltrimer captanether	Ingestion	endocrine system heart skin immune system nervous system eyes kidney and/or bladder respiratory system vascular system	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days
Hydrogenated Terphenyl	Inhalation	liver	Not classified	Rat	NOAEL 0.5 mg/l	90 days
Hydrogenated Terphenyl	Ingestion	endocrine system blood liver kidney and/or bladder	Not classified	Rat	NOAEL 144 mg/kg/day	14 weeks
2,4,6- Tris((dimethylamino)meth	Dermal	skin liver nervous system auditory	Not classified	Rat	NOAEL 125 mg/kg/day	28 days

yl)phenol		system hematopoietic system eyes				
Amorphous Silica	Inhalation	respiratory system silicosis	Not classified	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. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

EPA Hazardous Waste Number (RCRA): Not regulated

SECTION 14: Transport Information

For Transport Information, please visit http://3M.com/Transportinfo or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

15.1. US Federal Regulations

Contact 3M for more information.

EPCRA 311/312 Hazard Classifications:

Physical Hazards

Not applicable

Health Hazards

Respiratory or Skin Sensitization

Serious eye damage or eye irritation Skin Corrosion or Irritation

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

The components of this material are in compliance with the provisions of the Korean Toxic Chemical Control Law. Certain restrictions may apply. Contact the selling division for additional information.

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

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

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

SECTION 16: Other information

NFPA Hazard Classification

Health: 2 Flammability: 1 Instability: 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.

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