



Safety Data Sheet

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SECTION 1: Identification

1.1. Product identifier

3M™ Scotch-Weld™ Structural Adhesive Primer EW-5000 AS

Product Identification Numbers

LA-D100-0124-1, 87-2500-0100-2, 87-2500-0101-0, 87-2500-0102-8, 87-2500-0277-8, 87-6500-0503-3
7100057987, 7000058923, 7000058924, 7100006374

1.2. Recommended use and restrictions on use

Recommended use

Structural Adhesive Primer

1.3. Supplier's details

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

1.4. Emergency telephone number

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

SECTION 2: Hazard identification

2.1. Hazard classification

Flammable Liquid: Category 3.
Serious Eye Damage/Irritation: Category 2A.
Skin Sensitizer: Category 1A.

2.2. Label elements

Signal word

Warning

Symbols

Flame | Exclamation mark |

Pictograms

**Hazard Statements**

Flammable liquid and vapor.

Causes serious eye irritation.

May cause an allergic skin reaction.

Precautionary Statements**Prevention:**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Ground/bond container and receiving equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Keep container tightly closed.

Use explosion-proof electrical/ventilating/lighting equipment.

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 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.

If eye irritation persists: Get medical advice/attention.

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

Wash contaminated clothing before reuse.

In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

Storage:

Store in a well-ventilated place. Keep cool.

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.

2% of the mixture consists of ingredients of unknown acute dermal toxicity.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
WATER	7732-18-5	50 - 70
BISPHENOL A DIGLYCIDYL ETHER-BISPHENOL A COPOLYMER	25036-25-3	10 - 20 Trade Secret *
2-PROPOXYETHANOL	2807-30-9	1 - 5 Trade Secret *
AROMATIC AMIDE CURATIVE	17526-94-2	1 - 5
BISPHENOL A-EPICHLOROHYDRIN-	28906-96-9	1 - 5 Trade Secret *

FORMALDEHYDE COPOLYMER		
EPICHLOROHYDRIN-PHENOL-FORMALDEHYDE RESIN	9003-36-5	0.5 - 5 Trade Secret *
EPOXY RESIN	28064-14-4	1 - 5 Trade Secret *
ISOPROPYL ALCOHOL	67-63-0	1 - 5 Trade Secret *
Triphosphoric acid, aluminum salt (1:1)	13939-25-8	1 - 5 Trade Secret *
ACETONE	67-64-1	0.5 - 1.5 Trade Secret *
Zinc Phosphate	7779-90-0	< 1
OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]DERIVATIVES	68609-97-2	< 0.75 Trade Secret *
POLYOXYETHYLENE MONOOCTYLPHENYL ETHER	9036-19-5	< 0.75
Zinc Oxide	1314-13-2	< 0.1
EPICHLOROHYDRIN	106-89-8	< 0.0002

*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 flammable liquids such as dry chemical or carbon dioxide 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

Substance

Aldehydes
Carbon monoxide

Condition

During Combustion
During Combustion

Carbon dioxide
Hydrogen Chloride

During Combustion
During Combustion

5.3. Special protective actions for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. 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. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. 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. Cover spill area with a fire extinguishing foam that is resistant to polar solvents. 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 using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with water. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

For industrial/occupational use only. Not for consumer sale or use. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. 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.) Wear low static or properly grounded shoes. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapor accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store away from heat. Store away from acids. Store away from strong bases. 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.	Agency	Limit type	Additional Comments
EPICHLOROHYDRIN	106-89-8	ACGIH	TWA:0.5 ppm	A3: Confirmed animal carcin., Danger of cutaneous absorption
EPICHLOROHYDRIN	106-89-8	OSHA	TWA:19 mg/m ³ (5 ppm)	SKIN
Zinc Oxide	1314-13-2	ACGIH	TWA(respirable fraction):2 mg/m ³ ;STEL(respirable fraction):10 mg/m ³	
Zinc Oxide	1314-13-2	OSHA	TWA(as fume):5 mg/m ³ ;TWA(as total dust):15 mg/m ³ ;TWA(respirable fraction):5 mg/m ³	
Aluminum, insoluble compounds	13939-25-8	ACGIH	TWA(respirable fraction):1 mg/m ³	A4: Not class. as human carcin
ISOPROPYL ALCOHOL	67-63-0	ACGIH	TWA:200 ppm;STEL:400 ppm	A4: Not class. as human carcin
ISOPROPYL ALCOHOL	67-63-0	OSHA	TWA:980 mg/m ³ (400 ppm)	
ACETONE	67-64-1	ACGIH	TWA:250 ppm;STEL:500 ppm	A4: Not class. as human carcin
ACETONE	67-64-1	OSHA	TWA:2400 mg/m ³ (1000 ppm)	

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

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

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

Curing enclosures must be exhausted to outdoors or to a suitable emission control device. 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. Use explosion-proof ventilation 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

Yellow-Green

Odor

Slight Solvent

Odor threshold

No Data Available

pH

< 7

Melting point

No Data Available

Boiling Point

212 °F [@ 1 atm]

Flash Point

108.5 °F [Test Method:Closed Cup]

Evaporation rate

1 [Ref Std:WATER=1]

Flammability (solid, gas)

Not Applicable

Flammable Limits(LEL)

1.5 % [@ 20 °C]

Flammable Limits(UEL)

12.7 % [@ 20 °C]

Vapor Pressure

15 mmHg [@ 20 °C]

Vapor Density

No Data Available

Density

1.04 - 1.09 g/ml [@ 20 °C]

Specific Gravity

1.06 [@ 20 °C] [Ref Std:WATER=1]

Solubility in Water

Complete

Solubility- non-water

No Data Available

Partition coefficient: n-octanol/ water

No Data Available

Autoignition temperature

Not Applicable

Decomposition temperature

No Data Available

Viscosity

20 - 50 centipoise [@ 20 °C] [Test Method:Brookfield]

Volatile Organic Compounds

80 g/l - 84 g/l [Test Method:calculated SCAQMD rule 443.1]

VOC Less H₂O & Exempt Solvents

221 g/l - 252 g/l [Test Method:calculated SCAQMD rule 443.1]

Sustained Combustibility

Does not sustain combustion [Test Method:ASTM D4206]

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat

10.5. Incompatible materials

Amines

Strong acids

Strong bases

Strong oxidizing agents

10.6. Hazardous decomposition products**Substance****Condition**

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

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

11.1. Information on Toxicological effects**Signs and Symptoms of Exposure**

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

Inhalation:

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

Skin Contact:

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness. 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.

Carcinogenicity:

Ingredient	CAS No.	Class Description	Regulation
EPICHLOROHYDRIN	106-89-8	Grp. 2A: Probable human carc.	International Agency for Research on Cancer
EPICHLOROHYDRIN	106-89-8	Anticipated human carcinogen	National Toxicology Program Carcinogens

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-Vapor(4 hr)		No data available; calculated ATE >50 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
BISPHENOL A DIGLYCIDYL ETHER-BISPHENOL A COPOLYMER	Dermal	Rat	LD50 > 1,600 mg/kg
BISPHENOL A DIGLYCIDYL ETHER-BISPHENOL A COPOLYMER	Ingestion	Rat	LD50 > 1,000 mg/kg
ISOPROPYL ALCOHOL	Dermal	Rabbit	LD50 12,870 mg/kg
ISOPROPYL ALCOHOL	Inhalation-Vapor (4 hours)	Rat	LC50 72.6 mg/l
ISOPROPYL ALCOHOL	Ingestion	Rat	LD50 4,710 mg/kg
EPOXY RESIN	Dermal	Rabbit	LD50 > 6,000 mg/kg
EPOXY RESIN	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 1.7 mg/l
EPOXY RESIN	Ingestion	Rat	LD50 > 4,000 mg/kg
2-PROPOXYETHANOL	Dermal	Rabbit	LD50 1,337 mg/kg
2-PROPOXYETHANOL	Inhalation-Vapor (4 hours)	Rat	LC50 > 11.1 mg/l
2-PROPOXYETHANOL	Ingestion	Rat	LD50 3,089 mg/kg
Triphosphoric acid, aluminum salt (1:1)	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 3.46 mg/l
Triphosphoric acid, aluminum salt (1:1)	Ingestion	Rat	LD50 > 2,000 mg/kg
Triphosphoric acid, aluminum salt (1:1)	Dermal	similar health hazards	LD50 estimated to be > 5,000 mg/kg
EPICHLOROHYDRIN-PHENOL-FORMALDEHYDE RESIN	Dermal	Rabbit	LD50 > 2,000 mg/kg
EPICHLOROHYDRIN-PHENOL-FORMALDEHYDE RESIN	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 1.7 mg/l
EPICHLOROHYDRIN-PHENOL-FORMALDEHYDE RESIN	Ingestion	Rat	LD50 > 5,000 mg/kg
AROMATIC AMIDE CURATIVE	Dermal	Rat	LD50 > 2,000 mg/kg
AROMATIC AMIDE CURATIVE	Ingestion	Rat	LD50 > 2,000 mg/kg
ACETONE	Dermal	Rabbit	LD50 > 15,688 mg/kg
ACETONE	Inhalation-Vapor (4 hours)	Rat	LC50 76 mg/l
ACETONE	Ingestion	Rat	LD50 5,800 mg/kg
Zinc Phosphate	Dermal		LD50 estimated to be > 5,000 mg/kg
Zinc Phosphate	Ingestion	Rat	LD50 > 5,000 mg/kg
OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]DERIVATIVES	Dermal	Rabbit	LD50 > 4,000 mg/kg
OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]DERIVATIVES	Ingestion	Rat	LD50 17,100 mg/kg
POLYOXYETHYLENE MONOOCTYLPHENYL ETHER	Dermal	Rabbit	LD50 > 3,000 mg/kg
POLYOXYETHYLENE MONOOCTYLPHENYL ETHER	Ingestion	Rat	LD50 > 500 mg/kg
Zinc Oxide	Dermal		LD50 estimated to be > 5,000 mg/kg
Zinc Oxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5.7 mg/l
Zinc Oxide	Ingestion	Rat	LD50 > 5,000 mg/kg
EPICHLOROHYDRIN	Dermal	Rabbit	LD50 755 mg/kg
EPICHLOROHYDRIN	Inhalation-Vapor (4 hours)	Rat	LC50 1.7 mg/l
EPICHLOROHYDRIN	Ingestion	Rat	LD50 260 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
BISPHENOL A DIGLYCIDYL ETHER-BISPHENOL A COPOLYMER	Rabbit	Mild irritant
ISOPROPYL ALCOHOL	Multiple animal species	No significant irritation
EPOXY RESIN	Rabbit	Minimal irritation
Triphosphoric acid, aluminum salt (1:1)	In vitro data	No significant irritation
EPICHLOROHYDRIN-PHENOL-FORMALDEHYDE RESIN	Rabbit	Mild irritant
AROMATIC AMIDE CURATIVE	Rabbit	No significant irritation
ACETONE	Mouse	Minimal irritation
OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]DERIVATIVES	Rabbit	Mild irritant
Zinc Oxide	Human and animal	No significant irritation
EPICHLOROHYDRIN	Human and animal	Corrosive

Serious Eye Damage/Irritation

Name	Species	Value
BISPHENOL A DIGLYCIDYL ETHER-BISPHENOL A COPOLYMER	Rabbit	Moderate irritant
ISOPROPYL ALCOHOL	Rabbit	Severe irritant
EPOXY RESIN	Rabbit	Mild irritant
Triphosphoric acid, aluminum salt (1:1)	Rabbit	Severe irritant
EPICHLOROHYDRIN-PHENOL-FORMALDEHYDE RESIN	Rabbit	No significant irritation
AROMATIC AMIDE CURATIVE	Rabbit	No significant irritation
ACETONE	Rabbit	Severe irritant
OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]DERIVATIVES	Rabbit	Mild irritant
Zinc Oxide	Rabbit	Mild irritant
EPICHLOROHYDRIN	Rabbit	Corrosive

Skin Sensitization

Name	Species	Value
BISPHENOL A DIGLYCIDYL ETHER-BISPHENOL A COPOLYMER	Human and animal	Sensitizing
ISOPROPYL ALCOHOL	Guinea pig	Not classified
EPOXY RESIN	Human and animal	Sensitizing
EPICHLOROHYDRIN-PHENOL-FORMALDEHYDE RESIN	Multiple animal species	Sensitizing
OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]DERIVATIVES	Guinea pig	Sensitizing
Zinc Oxide	Guinea pig	Not classified
EPICHLOROHYDRIN	Human and animal	Sensitizing

Respiratory Sensitization

Name	Species	Value
BISPHENOL A DIGLYCIDYL ETHER-BISPHENOL A COPOLYMER	Human	Not classified

Germ Cell Mutagenicity

Name	Route	Value
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BISPHENOL A DIGLYCIDYL ETHER-BISPHENOL A COPOLYMER	In vivo	Not mutagenic
BISPHENOL A DIGLYCIDYL ETHER-BISPHENOL A COPOLYMER	In Vitro	Some positive data exist, but the data are not sufficient for classification
ISOPROPYL ALCOHOL	In Vitro	Not mutagenic
ISOPROPYL ALCOHOL	In vivo	Not mutagenic
EPOXY RESIN	In Vitro	Some positive data exist, but the data are not sufficient for classification
Triphosphoric acid, aluminum salt (1:1)	In vivo	Not mutagenic
Triphosphoric acid, aluminum salt (1:1)	In Vitro	Some positive data exist, but the data are not sufficient for classification
ACETONE	In vivo	Not mutagenic
ACETONE	In Vitro	Some positive data exist, but the data are not sufficient for classification
OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]DERIVATIVES	In vivo	Not mutagenic
OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]DERIVATIVES	In Vitro	Some positive data exist, but the data are not sufficient for classification
Zinc Oxide	In Vitro	Some positive data exist, but the data are not sufficient for classification
Zinc Oxide	In vivo	Some positive data exist, but the data are not sufficient for classification
EPICHLOROHYDRIN	In Vitro	Some positive data exist, but the data are not sufficient for classification
EPICHLOROHYDRIN	In vivo	Mutagenic

Carcinogenicity

Name	Route	Species	Value
BISPHENOL A DIGLYCIDYL ETHER-BISPHENOL A COPOLYMER	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
ISOPROPYL ALCOHOL	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
ACETONE	Not Specified	Multiple animal species	Not carcinogenic
EPICHLOROHYDRIN	Dermal	Mouse	Not carcinogenic
EPICHLOROHYDRIN	Ingestion	Rat	Carcinogenic
EPICHLOROHYDRIN	Inhalation	Rat	Carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
BISPHENOL A DIGLYCIDYL ETHER-BISPHENOL A COPOLYMER	Ingestion	Not classified for female reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
BISPHENOL A DIGLYCIDYL ETHER-BISPHENOL A COPOLYMER	Ingestion	Not classified for male reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
BISPHENOL A DIGLYCIDYL ETHER-BISPHENOL A COPOLYMER	Dermal	Not classified for development	Rabbit	NOAEL 300 mg/kg/day	during organogenesis
BISPHENOL A DIGLYCIDYL ETHER-BISPHENOL A COPOLYMER	Ingestion	Not classified for development	Rat	NOAEL 750 mg/kg/day	2 generation
ISOPROPYL ALCOHOL	Ingestion	Not classified for development	Rat	NOAEL 400 mg/kg/day	during organogenesis
ISOPROPYL ALCOHOL	Inhalation	Not classified for development	Rat	LOAEL 9 mg/l	during gestation
Triphosphoric acid, aluminum salt (1:1)	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	prematuring into lactation
Triphosphoric acid, aluminum salt (1:1)	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	46 days
Triphosphoric acid, aluminum salt (1:1)	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	prematuring into lactation
ACETONE	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,700 mg/kg/day	13 weeks

ACETONE	Inhalation	Not classified for development	Rat	NOAEL 5.2 mg/l	during organogenesis
OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]DERIVATIVES	Dermal	Not classified for development	Rat	NOAEL 200 mg/kg/day	during organogenesis
Zinc Oxide	Ingestion	Not classified for reproduction and/or development	Multiple animal species	NOAEL 125 mg/kg/day	prematings & during gestation
EPICHLOROHYDRIN	Inhalation	Not classified for female reproduction	Rat	NOAEL 0.2 mg/l	10 weeks
EPICHLOROHYDRIN	Inhalation	Not classified for development	Multiple animal species	NOAEL 0.09 mg/l	during organogenesis
EPICHLOROHYDRIN	Ingestion	Not classified for development	Multiple animal species	NOAEL 160 mg/kg/day	during gestation
EPICHLOROHYDRIN	Ingestion	Toxic to male reproduction	Rat	LOAEL 6.25 mg/kg/day	23 days
EPICHLOROHYDRIN	Inhalation	Toxic to male reproduction	Rat	NOAEL 0.02 mg/l	10 weeks

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
ISOPROPYL ALCOHOL	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
ISOPROPYL ALCOHOL	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
ISOPROPYL ALCOHOL	Inhalation	auditory system	Not classified	Guinea pig	NOAEL 13.4 mg/l	24 hours
ISOPROPYL ALCOHOL	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
Triphosphoric acid, aluminum salt (1:1)	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
ACETONE	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
ACETONE	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
ACETONE	Inhalation	immune system	Not classified	Human	NOAEL 1.19 mg/l	6 hours
ACETONE	Inhalation	liver	Not classified	Guinea pig	NOAEL Not available	
ACETONE	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]DERIVATIVES	Dermal	heart blood liver nervous system kidney and/or bladder	Not classified	Rabbit	NOAEL 4,000 mg/kg	24 hours
EPICHLOROHYDRIN	Inhalation	respiratory irritation	May cause respiratory irritation	Human	NOAEL not available	occupational exposure
EPICHLOROHYDRIN	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL not available	occupational exposure

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
BISPHENOL A DIGLYCIDYL ETHER-BISPHENOL A	Dermal	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	2 years

COPOLYMER						
BISPHENOL A DIGLYCIDYL ETHER-BISPHENOL A COPOLYMER	Dermal	nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	13 weeks
BISPHENOL A DIGLYCIDYL ETHER-BISPHENOL A COPOLYMER	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
ISOPROPYL ALCOHOL	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 12.3 mg/l	24 months
ISOPROPYL ALCOHOL	Inhalation	nervous system	Not classified	Rat	NOAEL 12 mg/l	13 weeks
ISOPROPYL ALCOHOL	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 400 mg/kg/day	12 weeks
Triphosphoric acid, aluminum salt (1:1)	Ingestion	heart skin endocrine system 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 1,000 mg/kg/day	46 days
ACETONE	Dermal	eyes	Not classified	Guinea pig	NOAEL Not available	3 weeks
ACETONE	Inhalation	hematopoietic system	Not classified	Human	NOAEL 3 mg/l	6 weeks
ACETONE	Inhalation	immune system	Not classified	Human	NOAEL 1.19 mg/l	6 days
ACETONE	Inhalation	kidney and/or bladder	Not classified	Guinea pig	NOAEL 119 mg/l	not available
ACETONE	Inhalation	heart liver	Not classified	Rat	NOAEL 45 mg/l	8 weeks
ACETONE	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 900 mg/kg/day	13 weeks
ACETONE	Ingestion	heart	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
ACETONE	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 200 mg/kg/day	13 weeks
ACETONE	Ingestion	liver	Not classified	Mouse	NOAEL 3,896 mg/kg/day	14 days
ACETONE	Ingestion	eyes	Not classified	Rat	NOAEL 3,400 mg/kg/day	13 weeks
ACETONE	Ingestion	respiratory system	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
ACETONE	Ingestion	muscles	Not classified	Rat	NOAEL 2,500 mg/kg	13 weeks
ACETONE	Ingestion	skin bone, teeth, nails, and/or hair	Not classified	Mouse	NOAEL 11,298 mg/kg/day	13 weeks
OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL] DERIVATIVES	Dermal	nervous system respiratory system	Not classified	Rat	NOAEL 100 mg/kg/day	14 weeks
OXIRANE, MONO[(C12-14-	Dermal	blood liver eyes kidney and/or	Not classified	Rat	NOAEL 100 mg/kg/day	13 weeks

ALKYLOXY)METHYL] DERIVATIVES		bladder				
Zinc Oxide	Ingestion	nervous system	Not classified	Rat	NOAEL 600 mg/kg/day	10 days
Zinc Oxide	Ingestion	endocrine system hematopoietic system kidney and/or bladder	Not classified	Other	NOAEL 500 mg/kg/day	6 months
EPICHLOROHYDRIN	Inhalation	liver	Causes damage to organs through prolonged or repeated exposure	Rat	NOAEL 0.21 mg/l	19 days
EPICHLOROHYDRIN	Inhalation	kidney and/or bladder	May cause damage to organs through prolonged or repeated exposure	Rat	NOAEL 0.04 mg/l	136 weeks
EPICHLOROHYDRIN	Inhalation	endocrine system	Not classified	Rat	NOAEL 0.377 mg/l	4 weeks
EPICHLOROHYDRIN	Inhalation	immune system	Not classified	Rat	LOAEL 0.211 mg/l	4 weeks
EPICHLOROHYDRIN	Inhalation	heart	Not classified	Rat	NOAEL 0.02 mg/l	98 days
EPICHLOROHYDRIN	Inhalation	nervous system	Not classified	Rat	NOAEL 0.002 mg/l	98 days
EPICHLOROHYDRIN	Inhalation	respiratory system	Not classified	Multiple animal species	NOAEL 0.02 mg/l	13 weeks
EPICHLOROHYDRIN	Inhalation	blood	Not classified	Rat	NOAEL 0.189 mg/l	90 days
EPICHLOROHYDRIN	Ingestion	heart blood	Not classified	Rat	NOAEL 80 mg/kg/day	12 weeks
EPICHLOROHYDRIN	Ingestion	liver	Not classified	Rat	NOAEL 25 mg/kg/day	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.

Incinerate uncured product in a permitted waste incineration facility. Combustion products will include halogen acid (HCl/HF/HBr). Facility must be capable of handling halogenated materials. As a disposal alternative, utilize an acceptable permitted waste disposal facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

EPA Hazardous Waste Number (RCRA): D001 (Ignitable)

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

Flammable (gases, aerosols, liquids, or solids)

Health Hazards

Respiratory or Skin Sensitization

Serious eye damage or eye irritation

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>
2-PROPOXYETHANOL (GLYCOL ETHERS)	2807-30-9	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. 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: 2 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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