



Safety Data Sheet

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Product identifier

3M™ Impact Resistant Structural Adhesive PN 07333, 57333

ID Number	UPC	ID Number	UPC
41-3588-1438-6		60-4550-8333-1	00051131073333
60-4550-8345-5	00076308573331		

7100050351, 7100050352

Recommended use

Automotive, Two-part color changing adhesive with optimized shear, peel and impact performance.

Supplier's details

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

Emergency telephone number

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

This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet (SDS), Article Information Sheet (AIS), or Article Information Letter (AIL) for each of these components is included. Please do not separate the component documents from this cover page. The document numbers for components of this product are:

33-5984-1, 33-5988-2

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Document Group:	33-5988-2	Version Number:	4.00
Issue Date:	12/07/20	Supersedes Date:	06/21/19

SECTION 1: Identification

1.1. Product identifier

3M™ Impact Resistant Structural Adhesive (Part B) PNs 07333, 57333

1.2. Recommended use and restrictions on use

Recommended use

Automotive, Base side of two-part color changing adhesive with optimized shear, peel and impact performance.

1.3. Supplier's details

MANUFACTURER:	3M
DIVISION:	Automotive Aftermarket
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

The label elements below were prepared in accordance with OSHA Hazard Communication Standard, 29 CFR 1910.1200. This information may be different from the actual product label information for labels regulated by other agencies.

2.1. Hazard classification

Serious Eye Damage/Irritation: Category 2A.

Skin Sensitizer: Category 1.

Reproductive Toxicity: Category 2.

Carcinogenicity: Category 2.

Germ Cell Mutagenicity: Category 2.

2.2. Label elements

Signal word

Warning

Symbols

Exclamation mark | Health Hazard |

Pictograms



Hazard Statements

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

Precautionary Statements

General:

Keep out of reach of children.

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 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.
 Wash contaminated clothing 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.

15% of the mixture consists of ingredients of unknown acute oral toxicity.
 17% of the mixture consists of ingredients of unknown acute dermal toxicity.
 92% of the mixture consists of ingredients of unknown acute inhalation toxicity.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	25068-38-6	70 - 90 Trade Secret *
Synthetic Rubber (04499600-7202)	Trade Secret*	4 - 20 Trade Secret *
1,4-Bis[(2,3-Epoxypropoxy)Methyl]Cyclohexane	14228-73-0	1 - 5 Trade Secret *
3-(Trimethoxysilyl)Propyl Glycidyl Ether	2530-83-8	1 - 5 Trade Secret *
Benzoic Acid, C9-C11-Branched Alkyl Esters	131298-44-7	1 - 5 Trade Secret *
Inorganic Filler (04499600-7205)	Trade Secret*	1 - 5 Trade Secret *
Treated Filler (04499600-7203)	Trade Secret*	1 - 5 Trade Secret *

Treated Inorganic Filler (04499600-7204)	Trade Secret*	1 - 5 Trade Secret *
Phenolphthalein	77-09-8	0.1 - 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

Substance

Aldehydes
Carbon monoxide
Carbon dioxide
Hydrogen Chloride

Condition

During Combustion
During Combustion
During Combustion
During Combustion

5.3. Special protective actions for fire-fighters

When fire fighting conditions are severe and total thermal decomposition of the product is possible, 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

Keep out of reach of children. Do not handle until all safety precautions have been read and understood. 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.) Use personal protective equipment (gloves, respirators, etc.) as required.

7.2. Conditions for safe storage including any incompatibilities

Store away from heat. 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
Inorganic Filler (04499600-7205)	Trade Secret	OSHA	TWA:20 millions of particles/cu. ft.;TWA concentration:0.8 mg/m3	
Treated Filler (04499600-7203)	Trade Secret	OSHA	TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3	
Treated Inorganic Filler (04499600-7204)	Trade Secret	OSHA	TWA:20 millions of particles/cu. ft.;TWA concentration:0.8 mg/m3	

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

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

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

Provide ventilated enclosure for curing. 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.

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. 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

Silver-Gray

Odor

Very Slight Acrylic

Odor threshold

No Data Available

pH

No Data Available

Melting point

No Data Available

Boiling Point

35 °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

5 mmHg

Vapor Density

No Data Available

Density

1.132 g/ml

Specific Gravity

1.132 [Ref Std: WATER=1]

Solubility in Water	No Data Available
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	100,000 centipoise - 500,000 centipoise
Molecular weight	No Data Available
Volatile Organic Compounds	0.1 % weight [Details:calculated per CARB title 2]
Volatile Organic Compounds	1 g/l [Details:calculated per SCAQMD 443.1]
Percent volatile	0.1 % weight
VOC Less H2O & Exempt Solvents	1 g/l [Details:calculated per SCAQMD 443.1]

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat
Sparks and/or flames

10.5. Incompatible materials

Strong acids
Strong oxidizing agents

10.6. Hazardous decomposition products

<u>Substance</u>	<u>Condition</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:

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:

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.

May cause additional health effects (see below).

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.

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.

Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

Ingredient	CAS No.	Class Description	Regulation
Phenolphthalein	77-09-8	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Phenolphthalein	77-09-8	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-Dust/Mist(4 hr)		No data available; calculated ATE5 - 12.5 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Dermal	Rat	LD50 > 1,600 mg/kg
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Ingestion	Rat	LD50 > 1,000 mg/kg
Treated Filler (04499600-7203)	Dermal	Rat	LD50 > 2,000 mg/kg
Treated Filler (04499600-7203)	Inhalation-Dust/Mist (4 hours)	Rat	LC50 3 mg/l
Treated Filler (04499600-7203)	Ingestion	Rat	LD50 6,450 mg/kg
Benzoic Acid, C9-C11-Branched Alkyl Esters	Dermal	Rabbit	LD50 > 2,000 mg/kg
Benzoic Acid, C9-C11-Branched Alkyl Esters	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 2 mg/l
Benzoic Acid, C9-C11-Branched Alkyl Esters	Ingestion	Rat	LD50 > 5,000 mg/kg
Treated Inorganic Filler (04499600-7204)	Dermal	Rabbit	LD50 > 5,000 mg/kg
Treated Inorganic Filler (04499600-7204)	Inhalation-Dust/Mist	Rat	LC50 > 0.691 mg/l

	(4 hours)		
Treated Inorganic Filler (04499600-7204)	Ingestion	Rat	LD50 > 5,110 mg/kg
Inorganic Filler (04499600-7205)	Dermal	Rabbit	LD50 > 5,000 mg/kg
Inorganic Filler (04499600-7205)	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Inorganic Filler (04499600-7205)	Ingestion	Rat	LD50 > 5,110 mg/kg
3-(Trimethoxysilyl)Propyl Glycidyl Ether	Dermal	Rabbit	LD50 4,000 mg/kg
3-(Trimethoxysilyl)Propyl Glycidyl Ether	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5.3 mg/l
3-(Trimethoxysilyl)Propyl Glycidyl Ether	Ingestion	Rat	LD50 7,010 mg/kg
1,4-Bis[(2,3-Epoxypropoxy)Methyl]Cyclohexane	Ingestion	Rat	LD50 1,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Rabbit	Mild irritant
Treated Filler (04499600-7203)	Rabbit	No significant irritation
Treated Inorganic Filler (04499600-7204)	Rabbit	No significant irritation
Inorganic Filler (04499600-7205)	Rabbit	No significant irritation
3-(Trimethoxysilyl)Propyl Glycidyl Ether	Rabbit	Mild irritant
1,4-Bis[(2,3-Epoxypropoxy)Methyl]Cyclohexane	In vitro data	Irritant

Serious Eye Damage/Irritation

Name	Species	Value
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Rabbit	Moderate irritant
Treated Filler (04499600-7203)	Rabbit	No significant irritation
Treated Inorganic Filler (04499600-7204)	Rabbit	No significant irritation
Inorganic Filler (04499600-7205)	Rabbit	No significant irritation
3-(Trimethoxysilyl)Propyl Glycidyl Ether	Rabbit	Corrosive
1,4-Bis[(2,3-Epoxypropoxy)Methyl]Cyclohexane	In vitro data	No significant irritation

Skin Sensitization

Name	Species	Value
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Human and animal	Sensitizing
Treated Inorganic Filler (04499600-7204)	Human and animal	Not classified
Inorganic Filler (04499600-7205)	Human and animal	Not classified
3-(Trimethoxysilyl)Propyl Glycidyl Ether	Guinea pig	Not classified
1,4-Bis[(2,3-Epoxypropoxy)Methyl]Cyclohexane	similar compounds	Sensitizing

Respiratory Sensitization

Name	Species	Value
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Human	Not classified

Germ Cell Mutagenicity

Name	Route	Value
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	In vivo	Not mutagenic

4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	In Vitro	Some positive data exist, but the data are not sufficient for classification
Treated Inorganic Filler (04499600-7204)	In Vitro	Not mutagenic
Inorganic Filler (04499600-7205)	In Vitro	Not mutagenic
3-(Trimethoxysilyl)Propyl Glycidyl Ether	In vivo	Not mutagenic
3-(Trimethoxysilyl)Propyl Glycidyl Ether	In Vitro	Some positive data exist, but the data are not sufficient for classification
1,4-Bis[(2,3-Epoxypropoxy)Methyl]Cyclohexane	In Vitro	Mutagenic; structurally related to germ cell mutagens

Carcinogenicity

Name	Route	Species	Value
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Treated Inorganic Filler (04499600-7204)	Not Specified	Mouse	Some positive data exist, but the data are not sufficient for classification
Inorganic Filler (04499600-7205)	Not Specified	Mouse	Some positive data exist, but the data are not sufficient for classification
3-(Trimethoxysilyl)Propyl Glycidyl Ether	Dermal	Mouse	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Ingestion	Not classified for female reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Ingestion	Not classified for male reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Dermal	Not classified for development	Rabbit	NOAEL 300 mg/kg/day	during organogenesis
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Ingestion	Not classified for development	Rat	NOAEL 750 mg/kg/day	2 generation
Treated Filler (04499600-7203)	Ingestion	Not classified for development	Rat	NOAEL 625 mg/kg/day	prematuring & during gestation
Treated Inorganic Filler (04499600-7204)	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Treated Inorganic Filler (04499600-7204)	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Treated Inorganic Filler (04499600-7204)	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
Inorganic Filler (04499600-7205)	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Inorganic Filler (04499600-7205)	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Inorganic Filler (04499600-7205)	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
3-(Trimethoxysilyl)Propyl Glycidyl Ether	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	1 generation
3-(Trimethoxysilyl)Propyl Glycidyl Ether	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	1 generation
3-(Trimethoxysilyl)Propyl Glycidyl Ether	Ingestion	Not classified for development	Rat	NOAEL 3,000 mg/kg/day	during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
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Treated Filler (04499600-7203)	Inhalation	respiratory system	Not classified	Rat	NOAEL 0.812 mg/l	90 minutes
1,4-Bis[(2,3-Epoxypropoxy)Methyl]Cyclohexane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Dermal	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	2 years
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Dermal	nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	13 weeks
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	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
Treated Filler (04499600-7203)	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
Treated Inorganic Filler (04499600-7204)	Inhalation	respiratory system silicosis	Not classified	Human	NOAEL Not available	occupational exposure
Inorganic Filler (04499600-7205)	Inhalation	respiratory system silicosis	Not classified	Human	NOAEL Not available	occupational exposure
3-(Trimethoxysilyl)Propyl Glycidyl Ether	Ingestion	heart endocrine system bone, teeth, nails, and/or hair hematopoietic system liver immune system nervous system kidney and/or bladder respiratory system	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days

Aspiration Hazard

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

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: Disposal considerations

13.1. Disposal methods

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

Dispose of completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. 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.

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

Carcinogenicity

Germ cell mutagenicity

Reproductive toxicity

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):

Ingredient

Phenolphthalein

C.A.S. No

77-09-8

% by Wt

Trade Secret 0.1 - 0.5

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:** 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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Safety Data Sheet

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SECTION 1: Identification

1.1. Product identifier

3M™ Impact Resistant Structural Adhesive Part A, PNs 07333, 57333

Product Identification Numbers

ID Number	UPC	ID Number	UPC
LB-K100-1573-6		LB-K100-1573-7	

1.2. Recommended use and restrictions on use

Recommended use

Automotive, Accelerator for two-part color changing adhesive with optimized shear, peel and impact performance.

1.3. Supplier's details

MANUFACTURER:	3M
DIVISION:	Automotive Aftermarket
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

The label elements below were prepared in accordance with OSHA Hazard Communication Standard, 29 CFR 1910.1200. This information may be different from the actual product label information for labels regulated by other agencies.

2.1. Hazard classification

Acute Toxicity (oral): Category 4.
 Serious Eye Damage/Irritation: Category 1.
 Skin Corrosion/Irritation: Category 1B.
 Skin Sensitizer: Category 1A.
 Reproductive Toxicity: Category 2.
 Specific Target Organ Toxicity (repeated exposure): Category 2.

2.2. Label elements

Signal word

Danger

Symbols

Corrosion | Exclamation mark | Health Hazard |

Pictograms



Hazard Statements

Harmful if swallowed.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
Suspected of damaging fertility or the unborn child.

May cause damage to organs through prolonged or repeated exposure:
liver |
musculoskeletal system |
kidney/urinary tract |

Precautionary Statements

General:

Keep out of reach of children.

Prevention:

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
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.

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.

Supplemental Information:

Persons previously sensitized to amines may develop a cross-sensitization reaction to certain other amines.

30% of the mixture consists of ingredients of unknown acute oral toxicity.
30% of the mixture consists of ingredients of unknown acute dermal toxicity.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Bis(3-Aminopropyl) Ether of Diethylene Glycol	4246-51-9	15 - 40 Trade Secret *
Epoxy Copolymer (04499600-7155)	Trade Secret*	10 - 30 Trade Secret *
2-Propenenitrile, Polymer with 1,3-Butadiene, 1-cyano-1-methyl-4-oxo-4-[[2-(1-piperazinyl)ethyl]amino]butyl-terminated	68683-29-4	5 - 10 Trade Secret *
Aluminum	7429-90-5	5 - 10 Trade Secret *
Methylenedi(cyclohexylamine)	1761-71-3	5 - 10 Trade Secret *
Acrylic Copolymer	Trade Secret*	5 - 10 Trade Secret *
Mineral Filler (04499600-7156)	Trade Secret*	< 10 Trade Secret *
m-Xylene-.alpha.alpha'.Diamine	1477-55-0	1 - 5 Trade Secret *
Tris(2,4,6-Dimethylaminomonomethyl)phenol	90-72-2	1 - 5 Trade Secret *
Inorganic Filler (04499600-7153)	Trade Secret*	1 - 5 Trade Secret *
Treated Filler (04499600-7152)	Trade Secret*	1 - 5 Trade Secret *
Formaldehyde, Polymer with Benzenamine, Hydrogenated	135108-88-2	< 2 Trade Secret *
N-Aminoethylpiperazine	140-31-8	< 0.25 Trade Secret *
1,3-Butadiene	106-99-0	< 0.03 Trade Secret *
Epichlorohydrin	106-89-8	< 0.03 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

Skin burns (localized redness, swelling, itching, intense pain, blistering, and tissue destruction). Allergic skin reaction (redness, swelling, blistering, and itching). Serious damage to the eyes (corneal cloudiness, severe pain, tearing, ulcerations, and significantly impaired or loss of vision). Target organ effects following prolonged or repeated exposure. See Section 11 for additional details.

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.

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

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**

Keep out of reach of children. 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 heat. 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
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/m3(5 ppm)	SKIN
1,3-Butadiene	106-99-0	ACGIH	TWA:2 ppm	A2: Suspected human carcin.
1,3-Butadiene	106-99-0	OSHA	TWA:1 ppm;STEL:5 ppm	29 CFR 1910.1051
m-Xylene-.alpha.alpha'.Diamine	1477-55-0	ACGIH	CEIL:0.018 ppm	Danger of cutaneous absorption
Aluminum	7429-90-5	ACGIH	TWA(respirable fraction):1 mg/m3	A4: Not class. as human carcin
Aluminum	7429-90-5	OSHA	TWA(as Al total dust):15 mg/m3;TWA(as Al, respirable fraction):5 mg/m3	
Inorganic Filler (04499600-7153)	Trade Secret	Manufacturer determined	TWA(as non-fibrous, respirable)(8 hours):3 mg/m3;TWA(as non-fibrous, inhalable fraction)(8 hours):10 mg/m3	
Inorganic Filler (04499600-7153)	Trade Secret	ACGIH	TWA(as fiber):0.2 fiber/cc	A2: Suspected human carcin.
Inorganic Filler (04499600-7153)	Trade Secret	ACGIH	TWA(as fiber):1 fiber/cc	A3: Confirmed animal carcin.
Inorganic Filler (04499600-7153)	Trade Secret	ACGIH	TWA(as fiber):1 fiber/cc	A4: Not class. as human carcin
Inorganic Filler (04499600-7153)	Trade Secret	ACGIH	TWA(inhalable fraction):5 mg/m3	A4: Not class. as human carcin
Mineral Filler (04499600-7156)	Trade Secret	ACGIH	TWA(inhalable fraction):1 mg/m3	A4: Not class. as human carcin
Treated Filler (04499600-7152)	Trade Secret	ACGIH	TWA(inhalable particulates):10 mg/m3	
Treated Filler (04499600-7152)	Trade Secret	ACGIH	TWA(respirable particles):3 mg/m3	
Treated Filler (04499600-7152)	Trade Secret	OSHA	TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3	

ACGIH : American Conference of Governmental Industrial Hygienists
 AIHA : American Industrial Hygiene Association
 CMRG : Chemical Manufacturer's Recommended Guidelines
 OSHA : United States Department of Labor - Occupational Safety and Health Administration
 TWA: Time-Weighted-Average
 STEL: Short Term Exposure Limit
 CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

Provide ventilated enclosure for curing. 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.

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

Silver-Gray

Specific Physical Form:

Paste

Odor

Very Slight Acrylic

Odor threshold

No Data Available

pH

No Data Available

Melting point

No Data Available

Boiling Point

No Data Available

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

5 mmHg

Vapor Density

No Data Available

Density

1.18 g/ml

Specific Gravity

1.18 [Ref Std:WATER=1]

Solubility in Water

No Data Available

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

55,000 - 80,000 centipoise

Hazardous Air Pollutants

0.0003 lb HAPS/lb solids [Test Method:Calculated]

Molecular weight

No Data Available

Volatile Organic Compounds	0.3 % weight [<i>Test Method</i> :calculated per CARB title 2]
Volatile Organic Compounds	3 g/l [<i>Test Method</i> :calculated SCAQMD rule 443.1]
Percent volatile	0.3 % weight
VOC Less H2O & Exempt Solvents	3 g/l [<i>Test Method</i> :calculated SCAQMD rule 443.1]

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat
Sparks and/or flames

10.5. Incompatible materials

Strong acids
Strong oxidizing agents

10.6. Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
Aldehydes	Not Specified
Carbon monoxide	Not Specified
Carbon dioxide	Not Specified

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:

May be harmful in contact with skin.

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:

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.

May cause additional health effects (see below).

Additional Health Effects:**Prolonged or repeated exposure may cause target organ effects:**

Liver Effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.

Muscular Effects: Signs/symptoms may include generalized muscle weakness, paralysis and atrophy.

Kidney/Bladder Effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

Reproductive/Developmental Toxicity:

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

Carcinogenicity:

Ingredient	CAS No.	Class Description	Regulation
Inorganic Filler (04499600-7153)	Trade Secret	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Inorganic Filler (04499600-7153)	Trade Secret	Anticipated human carcinogen	National Toxicology Program Carcinogens
1,3-Butadiene	106-99-0	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer
1,3-Butadiene	106-99-0	Known human carcinogen	National Toxicology Program Carcinogens
1,3-Butadiene	106-99-0	Cancer hazard	OSHA Carcinogens
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

Additional Information:

Persons previously sensitized to amines may develop a cross-sensitization reaction to certain other amines.

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 ATE2,000 - 5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE300 - 2,000 mg/kg
Bis(3-Aminopropyl) Ether of Diethylene Glycol	Dermal	Rabbit	LD50 2,500 mg/kg
Bis(3-Aminopropyl) Ether of Diethylene Glycol	Ingestion	Rat	LD50 3,160 mg/kg
Aluminum	Dermal		LD50 estimated to be > 5,000 mg/kg
Aluminum	Ingestion		LD50 estimated to be > 5,000 mg/kg
Aluminum	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.888 mg/l
Methylenedi(cyclohexylamine)	Dermal	Rabbit	LD50 2,110 mg/kg
Methylenedi(cyclohexylamine)	Ingestion	Rat	LD50 350 mg/kg
2-Propenenitrile, Polymer with 1,3-Butadiene, 1-cyano-1-methyl-4-oxo-4-[[2-(1-piperaziny)ethyl]amino]butyl-terminated	Dermal	Rabbit	LD50 > 3,000 mg/kg

2-Propenenitrile, Polymer with 1,3-Butadiene, 1-cyano-1-methyl-4-oxo-4-[[2-(1-piperaziny)ethyl]amino]butyl-terminated	Ingestion	Rat	LD50 > 15,300 mg/kg
Treated Filler (04499600-7152)	Dermal	Rat	LD50 > 2,000 mg/kg
Treated Filler (04499600-7152)	Inhalation-Dust/Mist (4 hours)	Rat	LC50 3 mg/l
Treated Filler (04499600-7152)	Ingestion	Rat	LD50 6,450 mg/kg
Mineral Filler (04499600-7156)	Dermal		LD50 estimated to be > 5,000 mg/kg
Mineral Filler (04499600-7156)	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Tris(2,4,6-Dimethylaminomonomethyl)phenol	Dermal	Rat	LD50 1,280 mg/kg
Tris(2,4,6-Dimethylaminomonomethyl)phenol	Ingestion	Rat	LD50 1,000 mg/kg
m-Xylene-.alpha.alpha'.Diamine	Dermal	Rabbit	LD50 > 2,000 mg/kg
m-Xylene-.alpha.alpha'.Diamine	Inhalation-Dust/Mist (4 hours)	Rat	LC50 1.2 mg/l
m-Xylene-.alpha.alpha'.Diamine	Ingestion	Rat	LD50 980 mg/kg
Formaldehyde, Polymer with Benzenamine, Hydrogenated	Dermal	Rat	LD50 > 700 mg/kg
Formaldehyde, Polymer with Benzenamine, Hydrogenated	Ingestion	Rat	LD50 300 mg/kg
Inorganic Filler (04499600-7153)	Dermal		LD50 estimated to be > 5,000 mg/kg
Inorganic Filler (04499600-7153)	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
N-Aminoethylpiperazine	Dermal	Rabbit	LD50 865 mg/kg
N-Aminoethylpiperazine	Ingestion	Rat	LD50 1,470 mg/kg
1,3-Butadiene	Dermal		LD50 estimated to be > 5,000 mg/kg
1,3-Butadiene	Inhalation-Gas (4 hours)	Rat	LC50 129,000 ppm
1,3-Butadiene	Ingestion	Rat	LD50 5,480 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
Bis(3-Aminopropyl) Ether of Diethylene Glycol	Rabbit	Corrosive
Aluminum	Rabbit	No significant irritation
Methylenedi(cyclohexylamine)	Rabbit	Corrosive
2-Propenenitrile, Polymer with 1,3-Butadiene, 1-cyano-1-methyl-4-oxo-4-[[2-(1-piperaziny)ethyl]amino]butyl-terminated	Rabbit	Irritant
Treated Filler (04499600-7152)	Rabbit	No significant irritation
Tris(2,4,6-Dimethylaminomonomethyl)phenol	Rabbit	Corrosive
m-Xylene-.alpha.alpha'.Diamine	Rat	Corrosive
Formaldehyde, Polymer with Benzenamine, Hydrogenated	In vitro data	Corrosive
Inorganic Filler (04499600-7153)	Professional judgement	No significant irritation
N-Aminoethylpiperazine	Rabbit	Corrosive
Epichlorohydrin	Human and animal	Corrosive

Serious Eye Damage/Irritation

Name	Species	Value
Bis(3-Aminopropyl) Ether of Diethylene Glycol	similar health hazards	Corrosive
Aluminum	Rabbit	No significant irritation

Methylenedi(cyclohexylamine)	Rabbit	Corrosive
2-Propenenitrile, Polymer with 1,3-Butadiene, 1-cyano-1-methyl-4-oxo-4-[[2-(1-piperazinyl)ethyl]amino]butyl-terminated	Rabbit	Mild irritant
Treated Filler (04499600-7152)	Rabbit	No significant irritation
Tris(2,4,6-Dimethylaminomonomethyl)phenol	Rabbit	Corrosive
m-Xylene-.alpha.alpha'.Diamine	Rabbit	Corrosive
Formaldehyde, Polymer with Benzenamine, Hydrogenated	similar health hazards	Corrosive
Inorganic Filler (04499600-7153)	Professional judgement	No significant irritation
N-Aminoethylpiperazine	Rabbit	Corrosive
Epichlorohydrin	Rabbit	Corrosive

Skin Sensitization

Name	Species	Value
Aluminum	Guinea pig	Not classified
Methylenedi(cyclohexylamine)	Guinea pig	Sensitizing
2-Propenenitrile, Polymer with 1,3-Butadiene, 1-cyano-1-methyl-4-oxo-4-[[2-(1-piperazinyl)ethyl]amino]butyl-terminated	Guinea pig	Sensitizing
Tris(2,4,6-Dimethylaminomonomethyl)phenol	Guinea pig	Not classified
m-Xylene-.alpha.alpha'.Diamine	Guinea pig	Sensitizing
Formaldehyde, Polymer with Benzenamine, Hydrogenated	Professional judgement	Sensitizing
N-Aminoethylpiperazine	Guinea pig	Sensitizing
Epichlorohydrin	Human and animal	Sensitizing

Respiratory Sensitization

Name	Species	Value
Aluminum	Human	Not classified

Germ Cell Mutagenicity

Name	Route	Value
Aluminum	In Vitro	Not mutagenic
Mineral Filler (04499600-7156)	In Vitro	Not mutagenic
Tris(2,4,6-Dimethylaminomonomethyl)phenol	In Vitro	Not mutagenic
m-Xylene-.alpha.alpha'.Diamine	In Vitro	Not mutagenic
m-Xylene-.alpha.alpha'.Diamine	In vivo	Not mutagenic
Formaldehyde, Polymer with Benzenamine, Hydrogenated	In Vitro	Not mutagenic
Inorganic Filler (04499600-7153)	In Vitro	Some positive data exist, but the data are not sufficient for classification
N-Aminoethylpiperazine	In vivo	Not mutagenic
N-Aminoethylpiperazine	In Vitro	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
Inorganic Filler (04499600-7153)	Inhalation	Multiple	Some positive data exist, but the data are not

		animal species	sufficient for classification
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
Treated Filler (04499600-7152)	Ingestion	Not classified for development	Rat	NOAEL 625 mg/kg/day	prematuring & during gestation
m-Xylene-.alpha.alpha'.Diamine	Ingestion	Not classified for female reproduction	Rat	NOAEL 450 mg/kg/day	1 generation
m-Xylene-.alpha.alpha'.Diamine	Ingestion	Not classified for male reproduction	Rat	NOAEL 450 mg/kg	1 generation
m-Xylene-.alpha.alpha'.Diamine	Ingestion	Not classified for development	Rat	NOAEL 450 mg/kg/day	1 generation
Formaldehyde, Polymer with Benzenamine, Hydrogenated	Ingestion	Not classified for female reproduction	Rat	NOAEL 140 mg/kg/day	prematuring into lactation
Formaldehyde, Polymer with Benzenamine, Hydrogenated	Ingestion	Not classified for male reproduction	Rat	NOAEL 140 mg/kg/day	28 days
Formaldehyde, Polymer with Benzenamine, Hydrogenated	Ingestion	Not classified for development	Rat	NOAEL 280 mg/kg/day	during gestation
N-Aminoethylpiperazine	Ingestion	Not classified for female reproduction	Rat	NOAEL 598 mg/kg/day	prematuring & during gestation
N-Aminoethylpiperazine	Ingestion	Not classified for male reproduction	Rat	NOAEL 409 mg/kg/day	32 days
N-Aminoethylpiperazine	Ingestion	Toxic to development	Rabbit	NOAEL 75 mg/kg/day	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
Bis(3-Aminopropyl) Ether of Diethylene Glycol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Methylenedi(cyclohexylamine)	Inhalation	respiratory irritation	May cause respiratory irritation	similar health hazards	NOAEL Not available	
2-Propenenitrile, Polymer with 1,3-Butadiene, 1-cyano-1-methyl-4-oxo-4-[[2-(1-piperazinyl)ethyl]amino]butyl-terminated	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL not available	
Treated Filler (04499600-7152)	Inhalation	respiratory system	Not classified	Rat	NOAEL 0.812 mg/l	90 minutes

Tris(2,4,6-Dimethylaminomonomethyl)phenol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
m-Xylene-.alpha.alpha'.Diamine	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Not available	NOAEL Not available	
Formaldehyde, Polymer with Benzenamine, Hydrogenated	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
N-Aminoethylpiperazine	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
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
Aluminum	Inhalation	nervous system respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
Methylenedi(cyclohexylamine)	Ingestion	liver muscles	May cause damage to organs though prolonged or repeated exposure	Rat	NOAEL 15 mg/kg/day	36 days
Treated Filler (04499600-7152)	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
Mineral Filler (04499600-7156)	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
Mineral Filler (04499600-7156)	Inhalation	pulmonary fibrosis	Not classified	Human and animal	NOAEL Not available	
Tris(2,4,6-Dimethylaminomonomethyl)phenol	Dermal	skin liver nervous system auditory system hematopoietic system eyes	Not classified	Rat	NOAEL 125 mg/kg/day	28 days
m-Xylene-.alpha.alpha'.Diamine	Ingestion	endocrine system blood bone marrow	Not classified	Rat	NOAEL 600 mg/kg/day	28 days
Formaldehyde, Polymer with Benzenamine, Hydrogenated	Ingestion	kidney and/or bladder	May cause damage to organs though prolonged or repeated exposure	Rat	NOAEL 15 mg/kg/day	28 days
Formaldehyde, Polymer with Benzenamine, Hydrogenated	Ingestion	endocrine system hematopoietic system liver nervous system	Not classified	Rat	NOAEL 300 mg/kg/day	28 days
Inorganic Filler (04499600-7153)	Inhalation	respiratory system	Not classified	Human	NOAEL not available	occupational exposure
N-Aminoethylpiperazine	Dermal	skin	Not classified	Rat	NOAEL 100 mg/kg/day	29 days
N-Aminoethylpiperazine	Dermal	hematopoietic system nervous system kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	29 days
N-Aminoethylpiperazine	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	NOAEL 0.2 mg/m3	13 weeks
N-Aminoethylpiperazine	Inhalation	hematopoietic system eyes kidney and/or bladder	Not classified	Rat	NOAEL 53.8 mg/m3	13 weeks
N-Aminoethylpiperazine	Ingestion	heart endocrine system hematopoietic system liver nervous system	Not classified	Rat	NOAEL 598 mg/kg/day	28 days

		kidney and/or bladder				
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 though 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.

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.

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

Acute toxicity

Hazard Not Otherwise Classified (HNOC)

Reproductive toxicity

Respiratory or Skin Sensitization

Serious eye damage or eye irritation

Skin Corrosion or Irritation

Specific target organ toxicity (single or repeated exposure)

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

Ingredient

Aluminum
Aluminum (Aluminum)

C.A.S. No

7429-90-5
7429-90-5

% by Wt

Trade Secret 5 - 10
Trade Secret 5 - 10

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

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

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

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

SECTION 16: Other information

NFPA Hazard Classification

Health: 3 Flammability: 1 Instability: 0 Special Hazards: None

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

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