3M(TM) AUTOMIX(TM) FLEXIBLE FOAM ADHESIVE, P.N. 08463



Safety Data Sheet

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SECTION 1: Identification

1.1. Product identifier

3M(TM) AUTOMIX(TM) FLEXIBLE FOAM ADHESIVE, P.N. 08463

Product Identification Numbers

41-0003-6635-5 41-0003-8014-1 41-3701-2158-8 60-9800-3647-3 60-9800-4269-5

60-9800-4270-3 60-9800-4271-1

1.2. Recommended use and restrictions on use

Recommended use

Automotive, Two Component Flexible Foam

1.3. Supplier's details

Company: 3M Canada Company Division: Automotive Aftermarket

Address: 1840 Oxford Street East, Post Office Box 5757, London, Ontario N6A 4T1

Telephone: (800) 364-3577

E Mail:

1.4. Emergency telephone number

Medical Emergency Telephone: 1-800-3M HELPS / 1-800-364-3577; Transportation Emergency Telephone (CANUTEC): (613) 996-6666

This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet (SDS) or Article Information Sheet (AIS) 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:

07-3378-2, 07-5569-4

Transport in accordance with applicable regulations.

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3M(TM) AUTOMIX(TM) FLEXIBLE FOAM ADHESIVE, P.N. 08463

COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. User is responsible for determining whether the product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

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 2021/01/21
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 2018/09/26

This Safety Data Sheet has been prepared in accordance with the Canadian Hazardous Products Regulations.

SECTION 1: Identification

1.1. Product identifier

3MTM Flexible Foam/Part A, 08463

Product Identification Numbers

LB-K100-0029-6

1.2. Recommended use and restrictions on use

Intended Use

Automotive

Specific Use

Two Component Flexible Foam

Restrictions on use

Not applicable

1.3. Supplier's details

Company: 3M Canada Company **Division:** Automotive Aftermarket

Address: 1840 Oxford Street East, Post Office Box 5757, London, Ontario N6A 4T1

Telephone: (800) 364-3577 **Website:** www.3M.ca

1.4. Emergency telephone number

Medical Emergency Telephone:1-800-3M HELPS / 1-800-364-3577; Transportation Emergency Telephone (CANUTEC): (613) 996-6666

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Serious Eye Damage/Irritation: Category 2A.

Skin Corrosion/Irritation: Category 2. Respiratory Sensitizer: Category 1.

Skin Sensitizer: Category 1.

Specific Target Organ Toxicity (single exposure): Category 3.

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

2.2. Label elements

Signal word

Danger

Symbols

Exclamation mark | Health Hazard |

Pictograms





Hazard statements

Causes serious eye irritation. Causes skin irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. May cause respiratory irritation.

Causes damage to organs through prolonged or repeated exposure: respiratory system

Precautionary statements

Prevention:

Do not breathe dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. In case of inadequate ventilation wear respiratory protection. Wear protective gloves and eye/face protection. Do not eat, drink or smoke when using this product. Wash exposed skin 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 experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. Call a POISON centre or doctor/physician if you feel unwell.

Storage:

Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal

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

2.3. Other hazards

None known.

38% of the mixture consists of ingredients of unknown acute oral toxicity.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt	Common Name
Urethane Prepolymer	Trade Secret	30 - 60	Not Applicable

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Polymethylene Polyphenylene	9016-87-9	10 -	30 Trade Secret *	Isocyanic acid,
Isocyanate				polymethylenepolyphenylene ester
Dimethyl Siloxane, Reaction	67762-90-7	1 -	5	Siloxanes and Silicones, di-Me, reaction
Product With Silica				products with silica

^{*}The actual concentration of this ingredient 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

No critical symptoms or effects. 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	<u>Condition</u>
Isocyanates	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Hydrogen Cyanide	During Combustion
Oxides of Nitrogen	During Combustion

5.3. Special protective actions for fire-fighters

Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

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 vapours, 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

Pour isocyanate decontaminant solution (90% water, 8% concentrated ammonia, 2% detergent) on spill and allow to react for 10 minutes. Or pour water on spill and allow to react for more than 30 minutes. Cover with absorbent material. 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 container approved for transportation by appropriate authorities, but do not seal the container for 48 hours to avoid pressure build-up. 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. 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 or professional use only. Not for consumer sale or use. Do not use in a confined area with minimal air exchange. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed to prevent contamination with water or air. If contamination is suspected, do not reseal container. Store away from heat. Store away from amines.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

No occupational exposure limit values exist for any of the components listed in Section 3 of this SDS.

8.2. Exposure controls

8.2.1. Engineering controls

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/vapours/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.

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

Neoprene

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Nitrile Rubber

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 – Butyl rubber

Apron - Neoprene

Apron – Nitrile

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 vapours 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

Specific Physical Form: Pasto	te			
	Brown			
0.000	purless			
	Data Available			
	Applicable			
	Applicable			
- 81-	48.9 °C			
Flash Point >=14	48.9 °C [Test Method:Closed Cup]			
Evaporation rate Not .	Applicable			
Flammability (solid, gas) Not	Applicable			
Flammable Limits(LEL) No 1	Data Available			
Flammable Limits(UEL) No I	Data Available			
	86,158.4 Pa [@ 55 °C] [<i>Details</i> :MITS data]			
Viscosity/Kinematic Viscosity Viscosity/Kinematic 8.5	[Ref Std:AIR=1]			
Viscosity				
	35 - 1.16 g/ml			
Relative density 1.13	35 - 1.16 [<i>Ref Std</i> :WATER=1]			
	Applicable			
J.	Data Available			
Partition coefficient: n-octanol/ water No I	Data Available			
Autoignition temperature No I	Data Available			
Decomposition temperature No I	Data Available			
Viscosity/Kinematic Viscosity No I	Data Available			
Volatile Organic Compounds 0.1 9	% weight [Test Method:calculated per CARB title 2]			
Volatile Organic Compounds 1 g/l	l [Test Method:calculated SCAQMD rule 443.1]			
Percent volatile 0.1 9	% weight			
VOC Less H2O & Exempt Solvents 1 g/l	l [Test Method:calculated SCAQMD rule 443.1]			
Molecular weight No I	Data Available			

Nanoparticles

This material contains nanoparticles.

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

10.5. Incompatible materials

Amines

Alcohols

Water

Reaction with water, alcohols, and amines is not hazardous if container can vent to the atmosphere to prevent pressure buildup.

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. Allergic Respiratory Reaction: Signs/symptoms may include difficulty breathing, wheezing, cough, and tightness of chest. May cause additional health effects (see below).

Skin Contact:

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

Eve 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.

Additional Health Effects:

Prolonged or repeated exposure may cause target organ effects:

Respiratory Effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish coloured skin (cyanosis), sputum production, changes in lung function tests, and/or respiratory failure.

Additional Information:

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

Toxicological Data

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

Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Polymethylene Polyphenylene Isocyanate	Dermal	Rabbit	LD50 > 5,000 mg/kg
Polymethylene Polyphenylene Isocyanate	Inhalation- Dust/Mist (4 hours)	Rat	LC50 0.368 mg/l
Polymethylene Polyphenylene Isocyanate	Ingestion	Rat	LD50 31,600 mg/kg
Dimethyl Siloxane, Reaction Product With Silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
Dimethyl Siloxane, Reaction Product With Silica	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Dimethyl Siloxane, Reaction Product With Silica	Ingestion	Rat	LD50 > 5,110 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Polymethylene Polyphenylene Isocyanate	official classifica tion	Irritant
Dimethyl Siloxane, Reaction Product With Silica	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Polymethylene Polyphenylene Isocyanate	official classifica tion	Severe irritant
Dimethyl Siloxane, Reaction Product With Silica	Rabbit	No significant irritation

Skin Sensitization

Name	Species	Value
Polymethylene Polyphenylene Isocyanate	official classifica	Sensitizing
	tion	
Dimethyl Siloxane, Reaction Product With Silica	Human	Not classified
	and	
	animal	

Respiratory Sensitization

Name	Species	Value
Polymethylene Polyphenylene Isocyanate	Human	Sensitizing

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Germ Cell Mutagenicity

Name	Route	Value
Polymethylene Polyphenylene Isocyanate	In Vitro	Some positive data exist, but the data are not sufficient for classification
Dimethyl Siloxane, Reaction Product With Silica	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Polymethylene Polyphenylene Isocyanate	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
Dimethyl Siloxane, Reaction Product With Silica	Not Specified	Mouse	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Polymethylene Polyphenylene Isocyanate	Inhalation	Not classified for development	Rat	NOAEL 0.004 mg/l	during organogenesi s
Dimethyl Siloxane, Reaction Product With Silica	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Dimethyl Siloxane, Reaction Product With Silica	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Dimethyl Siloxane, Reaction Product With Silica	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesi s

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Polymethylene Polyphenylene Isocyanate	Inhalation	respiratory irritation	May cause respiratory irritation	official classifica tion	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Specific Target Organ Toxicity - repeated exposure						
Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Polymethylene Polyphenylene Isocyanate	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.004 mg/l	13 weeks
Dimethyl Siloxane, Reaction Product With Silica	Inhalation	respiratory system silicosis	Not classified	Human	NOAEL Not available	occupational exposure

Aspiration Hazard

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

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

SECTION 12: Ecological information

No data available.

SECTION 13: Disposal considerations

13.1. Disposal methods

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

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate 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. Safety, health and environmental regulations/legislation specific for the substance or mixture

Global inventory status

Contact 3M for more information. The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the chemical notification requirements of TSCA. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory.

SECTION 16: Other information

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.

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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COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. User is responsible for determining whether the product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

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Safety Data Sheet

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 2019/10/24

This Safety Data Sheet has been prepared in accordance with the Canadian Hazardous Products Regulations.

SECTION 1: Identification

1.1. Product identifier

3MTM Flexible Foam Adhesive PN 08463, Part B

Product Identification Numbers

LB-K100-0029-7

1.2. Recommended use and restrictions on use

Intended Use

Automotive

Specific Use

Two Component Flexible Foam

Restrictions on use

Not applicable

1.3. Supplier's details

Company: 3M Canada Company **Division:** Automotive Aftermarket

Address: 1840 Oxford Street East, Post Office Box 5757, London, Ontario N6A 4T1

Telephone: (800) 364-3577 **Website:** www.3M.ca

1.4. Emergency telephone number

Medical Emergency Telephone:1-800-3M HELPS / 1-800-364-3577; Transportation Emergency Telephone (CANUTEC): (613) 996-6666

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Serious Eye Damage/Irritation: Category 2A.

Skin Corrosion/Irritation: Category 2.

Skin Sensitizer: Category 1B.

Reproductive Toxicity: Category 1B. Germ Cell Mutagenicity: Category 2.

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

2.2. Label elements

Signal word

Danger

Symbols

Exclamation mark | Health Hazard |

Pictograms





Hazard statements

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

Causes damage to organs: immune system liver | nervous system | kidney/urinary tract |

Causes damage to organs through prolonged or repeated exposure: immune system

Precautionary statements

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/vapours/spray. Wear protective gloves and eye/face protection. Do not eat, drink or smoke when using this product. Wash exposed skin thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. 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.

2.3. Other hazards

None known.

51% of the mixture consists of ingredients of unknown acute inhalation toxicity.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt	Common Name
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Glycerol Poly(Oxyethylene,	9082-00-2	30 - 60	Oxirane, methyl-, polymer with oxirane,
Oxypropylene) Ether			ether with 1,2,3-propanetriol (3:1)
Polypropylene Glycol Glycerol Triether	25791-96-2	30 - 60	Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.',.alpha."-1,2,3-propanetriyltris[.omegahydroxy-
Dimethyl Siloxane, Reaction Product with Silica	67762-90-7	3 - 7	Siloxanes and Silicones, di-Me, reaction products with silica
Dibutyltin Dilaurate	77-58-7	1 - 5 Trade Secret *	Stannane, dibutylbis[(1-oxododecyl)oxy]-
Diethylene Glycol	111-46-6	1 - 5 Trade Secret *	Ethanol, 2,2'-oxybis-
Dipropylene Glycol	25265-71-8	1 - 5	Propanol, oxybis-
Water	7732-18-5	1 - 5	Water
Triethylenediamine	280-57-9	0.5 - 1.5 Trade Secret *	1,4-Diazabicyclo[2.2.2]octane
Bis(dimethylaminoethyl) either	3033-62-3	< 1	Ethanamine, 2,2'-oxybis[N,N-dimethyl-

^{*}The actual concentration of this ingredient 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.

Eve 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.

5.3. Special protective actions for fire-fighters

Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

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 vapours, 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 detergent and 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

Do not use in a confined area with minimal air exchange. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/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. Use personal protective equipment (gloves, respirators, etc.) as required.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Store away from heat. Store away from areas where product may come into contact with food or pharmaceuticals.

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
Diethylene Glycol	111-46-6	AIHA	TWA:10 mg/m3	
Bis(dimethylaminoethyl) either	3033-62-3	ACGIH	TWA:0.05 ppm;STEL:0.15 ppm	Danger of cutaneous absorption
TIN, ORGANIC COMPOUNDS	77-58-7	ACGIH	TWA(as Sn):0.1 mg/m3;STEL(as Sn):0.2 mg/m3	Danger of cutaneous absorption

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

TWA: Time-Weighted-Average STEL: Short Term Exposure Limit

CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

Provide appropriate local exhaust ventilation on open containers. 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/vapours/spray. If ventilation is not adequate, use respiratory protection equipment. Provide appropriate local exhaust ventilation for cutting, grinding, sanding or machining.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

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

Indirect Vented Goggles

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.

Gloves made from the following material(s) are recommended: Neoprene Nitrile Rubber

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 - Neoprene Apron - Nitrile

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 vapours 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

Physical state	Liquid
Specific Physical Form:	Flexible Foam
Colour	Black
Odour	Odourless
Odour threshold	No Data Available
рН	Not Applicable
Melting point/Freezing point	Not Applicable
Boiling point	Not Applicable
Flash Point	>=121.1 °C [Test Method: Tagliabue Closed Cup]
Evaporation rate	Not Applicable
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	No Data Available
Flammable Limits(UEL)	No Data Available
Vapour Pressure	<=186,158.4 Pa [@ 55 °C] [Details: MITS data]
Viscosity/Kinematic Viscosity Viscosity/Kinematic	Not Applicable
Viscosity	
Density	0.96 - 1.03 g/ml
Relative density	0.96 - 1.03 [<i>Ref Std</i> :WATER=1]

Water solubility	Moderate
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/Kinematic Viscosity	No Data Available
Volatile Organic Compounds	45 g/l [Test Method:calculated SCAQMD rule 443.1]
Volatile Organic Compounds	1.9 % weight [Test Method:calculated per CARB title 2]
Percent volatile	26.3 % weight
VOC Less H2O & Exempt Solvents	57 g/l [Test Method:calculated SCAQMD rule 443.1]
Molecular weight	No Data Available

Nanoparticles

This material contains nanoparticles.

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

None known.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Substance	Condition
Carbon monoxide	Not Specified
Carbon dioxide	Not Specified
Toxic Vapor, Gas, Particulate	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:

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

Eye Contact:

Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea. May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:

Liver Effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice. Immunological Effects: Signs/symptoms may include alterations in the number of circulating immune cells, allergic skin and /or respiratory reaction, and changes in immune function. Neurological Effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and/or changes in blood pressure and heart rate. 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.

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. Immunological Effects: Signs/symptoms may include alterations in the number of circulating immune cells, allergic skin and /or respiratory reaction, and changes in immune function.

Reproductive/Developmental Toxicity:

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

Genotoxicity:

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

Toxicological Data

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

Acute Toxicity

Name	Route	Species	Value
Overall product	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
Glycerol Poly(Oxyethylene, Oxypropylene) Ether	Dermal	Rabbit	LD50 > 5,000 mg/kg
Glycerol Poly(Oxyethylene, Oxypropylene) Ether	Ingestion	Rat	LD50 > 10,000 mg/kg
Polypropylene Glycol Glycerol Triether	Dermal	Rat	LD50 > 2,000 mg/kg
Polypropylene Glycol Glycerol Triether	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 50 mg/l
Polypropylene Glycol Glycerol Triether	Ingestion	Rat	LD50 4,600 mg/kg
Dimethyl Siloxane, Reaction Product with Silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
Dimethyl Siloxane, Reaction Product with Silica	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Dimethyl Siloxane, Reaction Product with Silica	Ingestion	Rat	LD50 > 5,110 mg/kg

Dipropylene Glycol	Dermal	Rabbit	LD50 > 5,010 mg/kg
Dipropylene Glycol	Inhalation-	Rat	LC50 > 2.34 mg/l
	Dust/Mist		
	(4 hours)		
Dipropylene Glycol	Ingestion	Rat	LD50 > 5,010 mg/kg
Dibutyltin Dilaurate	Dermal	Rat	LD50 > 2,000 mg/kg
Dibutyltin Dilaurate	Ingestion	Rat	LD50 1,290 mg/kg
Diethylene Glycol	Ingestion	Human	LD50 estimated to be 300 - 2,000 mg/kg
Diethylene Glycol	Dermal	Rabbit	LD50 13,300 mg/kg
Diethylene Glycol	Inhalation-	Rat	LC50 > 4.6 mg/l
	Dust/Mist		
	(4 hours)		
Triethylenediamine	Dermal	Rabbit	LD50 > 3,200 mg/kg
Triethylenediamine	Inhalation-	Rat	LC50 > 5.05 mg/l
	Dust/Mist		
	(4 hours)		
Triethylenediamine	Ingestion	Rat	LD50 1,870 mg/kg
Bis(dimethylaminoethyl) either	Dermal	Rabbit	LD50 238 mg/kg
Bis(dimethylaminoethyl) either	Inhalation-	Rat	LC50 2.2 mg/l
	Vapor (4		
	hours)		
Bis(dimethylaminoethyl) either	Ingestion	Rat	LD50 570 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Polypropylene Glycol Glycerol Triether	Rabbit	No significant irritation
Dimethyl Siloxane, Reaction Product with Silica	Rabbit	No significant irritation
Dipropylene Glycol	Rabbit	No significant irritation
Dibutyltin Dilaurate	Rabbit	Corrosive
Diethylene Glycol	Rabbit	No significant irritation
Triethylenediamine	Rabbit	Mild irritant

Serious Eye Damage/Irritation

Name	Species	Value
Polypropylene Glycol Glycerol Triether	Rabbit	Mild irritant
Dimethyl Siloxane, Reaction Product with Silica	Rabbit	No significant irritation
Dipropylene Glycol	Rabbit	No significant irritation
Dibutyltin Dilaurate	Rabbit	Corrosive
Diethylene Glycol	Rabbit	Mild irritant
Triethylenediamine	Rabbit	Corrosive

Skin Sensitization

Name	Species	Value
Dimethyl Siloxane, Reaction Product with Silica	Human	Not classified
	and	
	animal	
Dipropylene Glycol	Guinea	Not classified
	pig	
Dibutyltin Dilaurate	Guinea	Sensitizing
	pig	

Respiratory Sensitization

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

Germ Cell Mutagenicity

Name	Route	Value
Dimethyl Siloxane, Reaction Product with Silica	In Vitro	Not mutagenic
Dipropylene Glycol	In Vitro	Not mutagenic
Dipropylene Glycol	In vivo	Not mutagenic

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Dibutyltin Dilaurate	In Vitro	Some positive data exist, but the data are not
		sufficient for classification
Dibutyltin Dilaurate	In vivo	Mutagenic

Carcinogenicity

Name	Route	Species	Value
Dimethyl Siloxane, Reaction Product with Silica	Not	Mouse	Some positive data exist, but the data are not
	Specified		sufficient for classification
Dipropylene Glycol	Ingestion	Multiple	Not carcinogenic
		animal	
		species	

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Dimethyl Siloxane, Reaction Product with Silica	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Dimethyl Siloxane, Reaction Product with Silica	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Dimethyl Siloxane, Reaction Product with Silica	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesi s
Dipropylene Glycol	Ingestion	Not classified for development	Rat	NOAEL 5,000 mg/kg/day	during organogenesi s
Dibutyltin Dilaurate	Ingestion	Toxic to female reproduction	Rat	NOAEL 2 mg/kg/day	premating into lactation
Dibutyltin Dilaurate	Ingestion	Toxic to development	Rat	NOAEL 2.5 mg/kg/day	during gestation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Dibutyltin Dilaurate	Ingestion	immune system	Causes damage to organs	Rat	LOAEL 5 mg/kg	
Diethylene Glycol	Ingestion	liver nervous system kidney and/or bladder	Causes damage to organs	Human	NOAEL Not available	poisoning and/or abuse
Diethylene Glycol	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Dimethyl Siloxane, Reaction Product with Silica	Inhalation	respiratory system silicosis	Not classified	Human	NOAEL Not available	occupational exposure
Dipropylene Glycol	Ingestion	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 470 mg/kg/day	105 weeks
Dipropylene Glycol	Ingestion	heart	Not classified	Rat	NOAEL 470 mg/kg/day	105 weeks
Dipropylene Glycol	Ingestion	endocrine system liver	Not classified	Rat	NOAEL 3,040 mg/kg/day	105 weeks
Dipropylene Glycol	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 115 mg/kg/day	105 weeks
Dipropylene Glycol	Ingestion	skin bone, teeth, nails, and/or hair hematopoietic system immune	Not classified	Rat	NOAEL 3,040 mg/kg/day	105 weeks

		system nervous system vascular system				
Dibutyltin Dilaurate	Ingestion	liver	Causes damage to organs through prolonged or repeated exposure	Rat	NOAEL 2 mg/kg/day	2 weeks
Dibutyltin Dilaurate	Ingestion	immune system	Causes damage to organs through prolonged or repeated exposure	Rat	NOAEL 0.3 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

No data available.

SECTION 13: Disposal considerations

13.1. Disposal methods

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

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate 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. Safety, health and environmental regulations/legislation specific for the substance or mixture

Global inventory status

Contact 3M for more information. The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA. The components of this product are in compliance with the chemical notification requirements of TSCA. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory.

SECTION 16: Other information

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.

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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3M Canada SDSs are available at www.3M.ca

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