

## **Safety Data Sheet**

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 Document Group:
 32-1708-0
 Version Number:
 3.02

 Issue Date:
 01/22/18
 Supercedes Date:
 07/14/15

## **SECTION 1: Identification**

#### 1.1. Product identifier

3M(TM) Scotch-Weld(TM) Acrylic Adhesive 8405NS Green, Part B

#### **Product Identification Numbers**

62-2856-8530-1, 62-2856-9530-0

#### 1.2. Recommended use and restrictions on use

### Recommended use

Adhesive, Activator for 2-part acrylic adhesive

1.3. Supplier's details

MANUFACTURER: 3M

**DIVISION:** Industrial Adhesives and Tapes Division **ADDRESS:** 3M Center, St. Paul, MN 55144-1000, USA **Telephone:** 1-888-3M HELPS (1-888-364-3577)

### 1.4. Emergency telephone number

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

## **SECTION 2: Hazard identification**

### 2.1. Hazard classification

Flammable Liquid: Category 2.

Serious Eye Damage/Irritation: Category 2A.

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**

Flame | Exclamation mark | Health Hazard |

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#### **Pictograms**







### **Hazard Statements**

Highly flammable liquid and vapor.

Causes serious eye irritation. May cause an allergic skin reaction. May cause respiratory irritation.

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

### **Precautionary Statements**

#### **Prevention:**

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

Ground/bond container and receiving equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Keep container tightly closed.

Use explosion-proof electrical/ventilating/lighting equipment.

Do not breathe dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Wear protective gloves 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.

If eye irritation persists: Get medical advice/attention.

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

Wash contaminated clothing before reuse.

Get medical advice/attention if you feel unwell.

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

### Storage:

Keep cool.

Keep container tightly closed.

Store locked up in a well-ventilated place.

#### Disposal:

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

4% of the mixture consists of ingredients of unknown acute oral toxicity.

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4% of the mixture consists of ingredients of unknown acute dermal toxicity. 6% of the mixture consists of ingredients of unknown acute inhalation toxicity.

## **SECTION 3: Composition/information on ingredients**

Ingredient	C.A.S. No.	% by Wt
Methyl Methacrylate	80-62-6	45 - 65 Trade Secret *
Acrylonitrile-Butadiene Polymer	9003-18-3	1 - 20 Trade Secret *
Fillers (NJTS Reg. No. 04499600-6923)	Trade Secret*	1 - 20 Trade Secret *
Bisphenol A Polyethylene Glycol Diether	41637-38-1	0.1 - 10 Trade Secret *
Dimethacrylate		
Hydroxyethyl Methacrylate	868-77-9	0.1 - 10 Trade Secret *
Dispersing Agent (NJTS Reg. No. 04499600-6929)	Trade Secret*	0.1 - 5 Trade Secret *
Phosphate Esters of PPG Methacrylate (NJTS Reg. No. 04499600-6924)	Trade Secret*	0.1 - 5 Trade Secret *

NJTS or NJTSRN: New Jersey Trade Secret Registry Number.

### **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

#### **Inhalation:**

Remove person to fresh air. If you feel unwell, get medical attention.

### **Skin Contact:**

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

## **Eye Contact:**

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

### If Swallowed:

Rinse mouth. If you feel unwell, get medical attention.

### 4.2. Most important symptoms and effects, both acute and delayed

See Section 11.1. Information on toxicological effects.

### 4.3. Indication of any immediate medical attention and special treatment required

Not applicable

## **SECTION 5: Fire-fighting measures**

## 5.1. Suitable extinguishing media

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

### 5.2. Special hazards arising from the substance or mixture

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

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<sup>\*</sup>The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

### **Hazardous Decomposition or By-Products**

Substance
Carbon monoxide
Carbon dioxide
Oxides of Nitrogen

Condition
During Combustion
During Combustion
During Combustion

### 5.3. Special protective actions for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

## **SECTION 6: Accidental release measures**

### 6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

### 6.2. Environmental precautions

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

#### 6.3. Methods and material for containment and cleaning up

Contain spill. Cover spill area with a fire-extinguishing foam. An appropriate aqueous film forming foam (AFFF) is recommended. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with 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 away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. 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.) Wear low static or properly grounded shoes. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapor accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer.

### 7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store away from heat. Store away from acids. Store away from strong bases. Store away from oxidizing agents. Store away from amines.

## **SECTION 8: Exposure controls/personal protection**

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#### 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	<b>Additional Comments</b>
Methyl Methacrylate	80-62-6	ACGIH	TWA:50 ppm;STEL:100 ppm	Dermal Sensitizer, A4:
				Not class. as human
				carcin
Methyl Methacrylate	80-62-6	OSHA	TWA:410 mg/m3(100 ppm)	
Dispersing Agent (NJTS Reg. No.	Trade	ACGIH	TWA(inhalable fraction):10	A4: Not class. as human
04499600-6929)	Secret		mg/m3;TWA(respirable	carcin
·			fraction):3 mg/m3	
Fillers (NJTS Reg. No.	Trade	ACGIH	TWA(respirable fraction):2	A4: Not class. as human
04499600-6923)	Secret		mg/m3	carcin
Fillers (NJTS Reg. No.	Trade	OSHA	TWA(as total dust):15	
04499600-6923)	Secret		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

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

### 8.2.2. Personal protective equipment (PPE)

#### Eye/face protection

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

**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

#### 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.

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## **SECTION 9: Physical and chemical properties**

### 9.1. Information on basic physical and chemical properties

General Physical Form:

Specific Physical Form:

Paste

Odor, Color, Grade:White methacrylate odorOdor thresholdNo Data AvailablepHNot ApplicableMelting pointNot ApplicableBoiling Point>=100 °F

Flash Point >=50 °F [Test Method:Closed Cup]

Evaporation rateNo Data AvailableFlammability (solid, gas)Not ApplicableFlammable Limits(LEL)No Data AvailableFlammable Limits(UEL)No Data AvailableVapor PressureNo Data AvailableVapor DensityNo Data Available

**Density** 1.07 g/ml

Specific Gravity 1.07 [Ref Std:WATER=1]

Solubility in Water Nil

Solubility- non-waterNo Data AvailablePartition coefficient: n-octanol/ waterNo Data AvailableAutoignition temperatureNo Data AvailableDecomposition temperatureNo Data AvailableViscosity50,000 - 80,000 centipoise

**Hazardous Air Pollutants** 50 - 55 % weight **Molecular weight** No Data Available

VOC Less H2O & Exempt Solvents

17.2 g/l [Details: when used as intended with Part A]

VOC Less H2O & Exempt Solvents

1.6 % [Details: when used as intended with Part A]

# **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

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

### 10.2. Chemical stability

Stable.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

Heat

Sparks and/or flames

### 10.5. Incompatible materials

Amines
Strong acids
Strong bases

Strong oxidizing agents

### 10.6. Hazardous decomposition products

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#### **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.

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.

### **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.

### **Additional Health Effects:**

#### Prolonged or repeated exposure may cause target organ effects:

Pneumoconiosis: Sign/symptoms may include persistent cough, breathlessness, chest pain, increased amounts of sputum, and changes in lung function tests.

Olfactory Effects: Signs/symptoms may include decreased ability to detect odors and/or complete loss of smell.

#### **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**

redic 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
Methyl Methacrylate	Dermal	Rabbit	LD50 > 5,000 mg/kg

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3M(TM	Scotch-Weld	(TM) Acry	lic Adhesive	8405NS Green	Part R

Methyl Methacrylate	Inhalation- Vapor (4 hours)	Rat	LC50 29 mg/l
Methyl Methacrylate	Ingestion	Rat	LD50 7,900 mg/kg
Acrylonitrile-Butadiene Polymer	Dermal	Rabbit	LD50 > 15,000 mg/kg
Acrylonitrile-Butadiene Polymer	Ingestion	Rat	LD50 > 30,000 mg/kg
Bisphenol A Polyethylene Glycol Diether Dimethacrylate	Dermal	Professio nal judgeme nt	LD50 estimated to be > 5,000 mg/kg
Bisphenol A Polyethylene Glycol Diether Dimethacrylate	Ingestion	Rat	LD50 > 2,000 mg/kg
Fillers (NJTS Reg. No. 04499600-6923)	Dermal		LD50 estimated to be > 5,000 mg/kg
Fillers (NJTS Reg. No. 04499600-6923)	Ingestion	Human	LD50 > 15,000 mg/kg
Hydroxyethyl Methacrylate	Dermal	Rabbit	LD50 > 5,000  mg/kg
Hydroxyethyl Methacrylate	Ingestion	Rat	LD50 5,564 mg/kg

### Skin Corrosion/Irritation

Name	Species	Value
Methyl Methacrylate	Human and animal	Mild irritant
Acrylonitrile-Butadiene Polymer	Professio nal judgeme nt	No significant irritation
Fillers (NJTS Reg. No. 04499600-6923)	Professio nal judgeme nt	No significant irritation
Hydroxyethyl Methacrylate	Rabbit	Minimal irritation

**Serious Eye Damage/Irritation** 

Name	Species	Value
Methyl Methacrylate	Rabbit	Moderate irritant
Acrylonitrile-Butadiene Polymer	Professio	No significant irritation
	nal	
	judgeme	
	nt	
Fillers (NJTS Reg. No. 04499600-6923)	Professio	No significant irritation
	nal	
	judgeme	
	nt	
Hydroxyethyl Methacrylate	Rabbit	Moderate irritant

## **Skin Sensitization**

Name	Species	Value
Methyl Methacrylate	Human	Sensitizing
	and	
	animal	
Bisphenol A Polyethylene Glycol Diether Dimethacrylate	Guinea	Not classified
	pig	
Hydroxyethyl Methacrylate	Human	Sensitizing
	and	
	animal	

**Respiratory Sensitization** 

Name	Species	Value
Methyl Methacrylate	Human	Not classified

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ATE = acute toxicity estimate

**Germ Cell Mutagenicity** 

Name	Route	Value		
Methyl Methacrylate	In vivo	Not mutagenic		
Methyl Methacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification		
Bisphenol A Polyethylene Glycol Diether Dimethacrylate	In Vitro	Not mutagenic		
Hydroxyethyl Methacrylate	In vivo	Not mutagenic		
Hydroxyethyl Methacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification		

Carcinogenicity

Name	Route	Species	Value
Methyl Methacrylate	Ingestion	Rat	Not carcinogenic
Methyl Methacrylate	Inhalation	Human and animal	Not carcinogenic
Fillers (NJTS Reg. No. 04499600-6923)	Inhalation	Multiple animal species	Not carcinogenic

## **Reproductive Toxicity**

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Methyl Methacrylate	Inhalation	Not classified for male reproduction	Mouse	NOAEL 36.9 mg/l	
Methyl Methacrylate	Inhalation	Not classified for development	Rat	NOAEL 8.3 mg/l	during organogenesi s
Hydroxyethyl Methacrylate	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
Hydroxyethyl Methacrylate	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	49 days
Hydroxyethyl Methacrylate	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation

## Target Organ(s)

Specific Target Organ Toxicity - single exposure

Specific Target Organ	cinc ranget Organ Toxicity - single exposure					
Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Methyl Methacrylate	Inhalation	respiratory irritation	May cause respiratory irritation	Human	NOAEL Not available	occupational exposure

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Methyl Methacrylate	Dermal	peripheral nervous system	Not classified	Human	NOAEL Not available	occupational exposure
Methyl Methacrylate	Inhalation	olfactory system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Methyl Methacrylate	Inhalation	kidney and/or bladder	Not classified	Multiple animal species	NOAEL Not available	14 weeks
Methyl Methacrylate	Inhalation	liver	Not classified	Mouse	NOAEL 12.3 mg/l	14 weeks
Methyl Methacrylate	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
Fillers (NJTS Reg. No.	Inhalation	pneumoconiosis	Causes damage to organs through	Human	NOAEL NA	occupational

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### 3M(TM) Scotch-Weld(TM) Acrylic Adhesive 8405NS Green, Part B

04499600-6923) prolonged or repeated exposure exposure
Fillers (NJTS Reg. No. Unhalation pulmonary fibrosis of the classified of the class

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#### **Aspiration Hazard**

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

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

## **SECTION 12: Ecological information**

### **Ecotoxicological information**

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

#### **Chemical fate information**

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

# **SECTION 13: Disposal considerations**

#### 13.1. Disposal methods

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

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

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

## **SECTION 14: Transport Information**

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

## **SECTION 15: Regulatory information**

### 15.1. US Federal Regulations

Contact 3M for more information.

### EPCRA 311/312 Hazard Classifications:

### Physical Hazards

Flammable (gases, aerosols, liquids, or solids)

## **Health Hazards**

Respiratory or Skin Sensitization

Serious eye damage or eye irritation

Specific target organ toxicity (single or repeated exposure)

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

Ingredient	C.A.S. No	% by Wt
ingi cuicit	C.A.S. 110	70 Dy VV L

Methyl Methacrylate 80-62-6 Trade Secret 45 - 65

#### 15.2. State Regulations

Contact 3M for more information.

#### California Proposition 65

<u>Ingredient</u>	C.A.S. No.	Listing
4,4'-ISOPROPYLIDENEDIPHENOL	80-05-7	Female reproductive toxin
1,3-BUTADIENE	106-99-0	Female reproductive toxin
1,3-BUTADIENE	106-99-0	Male reproductive toxin
1,3-BUTADIENE	106-99-0	Carcinogen
1,3-BUTADIENE	106-99-0	Developmental Toxin
Acrylonitrile	107-13-1	Carcinogen
ETHYLENE OXIDE	75-21-8	Female reproductive toxin
ETHYLENE OXIDE	75-21-8	Male reproductive toxin
ETHYLENE OXIDE	75-21-8	Carcinogen
ETHYLENE OXIDE	75-21-8	Developmental Toxin

#### 15.3. Chemical Inventories

The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

#### 15.4. International Regulations

Contact 3M for more information.

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

### **SECTION 16: Other information**

#### NFPA Hazard Classification

Health: 2 Flammability: 3 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.

Document Group:32-1708-0Version Number:3.02Issue Date:01/22/18Supercedes Date:07/14/15

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