

## Safety Data Sheet

Copyright,2014,3M Company.

All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

 Document Group:
 28-8293-4
 Version Number:
 4.00

 Issue Date:
 11/12/14
 Supercedes Date:
 10/29/14

#### **Product identifier**

3M Scotchcast<sup>TM</sup> Flame-Retardant Compound 2131 (Parts A and B)

#### **ID Number(s):**

80-6114-6812-7, 80-6114-6813-5, 80-6114-6814-3, 80-6114-6815-0, 80-6114-6816-8, 80-6114-6817-6, 80-6114-6818-4, 80-6114-6819-2, 80-6114-6820-0, 80-6114-6821-8, 80-6114-6822-6, 80-6114-6823-4, 80-6114-6824-2, 80-6114-6825-9, 80-6114-6876-2, 80-6114-6876-2, 80-6114-6876-2, 80-6116-0620-5, 80-6116-0621-3, 80-6116-1277-3

#### Recommended use

Electrical, Industrial use, Resin

### Supplier's details

**MANUFACTURER:** 3M

**DIVISION:** Electrical Markets Division

**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:

28-7666-2, 28-7650-6

DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M 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 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3M provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, 3M makes no representations as to its completeness or accuracy.

3M	Scotchcast <sup>TM</sup>	Flame-Rate	ardant Co	hamaand	2131 (1	Parte A a	and R)	11/12/14
DIVI I	Scotencast***	r iame-keu	araani Ca	mbouna	2131 (I	Parts A a	ina B)	11/12/14

In addition, information obtained from a database may not be as current as the information in the SDS available directly from 3M 3M USA SDSs are available at www.3M.com



## **Safety Data Sheet**

Copyright, 2018, 3M Company.

All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

 Document Group:
 28-7650-6
 Version Number:
 6.00

 Issue Date:
 05/22/18
 Supercedes Date:
 09/13/17

## **SECTION 1: Identification**

#### 1.1. Product identifier

3M<sup>™</sup> Scotchcast<sup>™</sup> Flame-Retardant Compound 2131 (Part A)

#### **Product Identification Numbers**

 ID Number
 UPC
 ID Number
 UPC

 80-6114-2633-1
 80-6114-6840-8
 000-51128-59181-9

80-6116-1242-7

### 1.2. Recommended use and restrictions on use

## Recommended use

Electrical, Part A of two part electrical resin

1.3. Supplier's details

MANUFACTURER: 3M

**DIVISION:** Electrical Markets Division

ADDRESS: 3M Center, St. Paul, MN 55144-1000, USA

**Telephone:** 1-888-3M HELPS (1-888-364-3577)

### 1.4. Emergency telephone number

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

## **SECTION 2: Hazard identification**

## 2.1. Hazard classification

Serious Eye Damage/Irritation: Category 2A. Skin Corrosion/Irritation: Category 2.

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

**Page 1 of** 11

#### **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/vapors/spray.

Use only outdoors or in a well-ventilated area.

In case of inadequate ventilation wear respiratory protection.

Wear eye/face protection.

Wear protective gloves.

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 experiencing respiratory symptoms: Call a POISON CENTER 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.

### **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.

25% of the mixture consists of ingredients of unknown acute oral toxicity.

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

Ingredient	C.A.S. No.	% by Wt
POLYETHER-HYDROCARBON-URETHANE	154517-54-1	35 - 45 Trade Secret *

Page 2 of 11

POLYMER		
P,P'-METHYLENEBIS(PHENYL ISOCYANATE)	101-68-8	25 - 35 Trade Secret *
BENZENE, 1,1'-METHYLENEBIS[ISOCYANATO-,	39310-05-9	5 - 15 Trade Secret *
HOMOPOLYMER		
DIUNDECYL PHTHALATE	3648-20-2	0 - 15
DIUNDECYL PHTHALATE, BRANCHED AND	85507-79-5	0 - 15
LINEAR		
1,1'-METHYLENEBIS(ISOCYANATOBENZENE)	26447-40-5	< 2 Trade Secret *
4-VINYLCYCLOHEXENE	100-40-3	< 0.0005 Trade Secret *

<sup>\*</sup>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

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

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

Substance	<b>Condition</b>
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

**Page** 3 **of** 11

No special protective actions for fire-fighters are anticipated.

## **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.

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

Contain spill. 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. Do not use in a confined area with minimal air exchange. 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.

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

Store in a well-ventilated place. Keep cool. Keep container tightly closed to prevent contamination with water or air. If contamination is suspected, do not reseal container. Protect from sunlight. Store away from heat. Store away from strong bases. Store away from areas where product may come into contact with food or pharmaceuticals. Store in a dry place.

## **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
4-VINYLCYCLOHEXENE	100-40-3	ACGIH	TWA:0.1 ppm	A3: Confirmed animal
				carcin.
4-VINYLCYCLOHEXENE	100-40-3	AIHA	TWA:4.4 mg/m3(1 ppm)	
P,P'-	101-68-8	ACGIH	TWA:0.005 ppm	
METHYLENEBIS(PHENYL				
ISOCYANATE)				
P,P'-	101-68-8	OSHA	CEIL:0.2 mg/m3(0.02 ppm)	
METHYLENEBIS(PHENYL				
ISOCYANATE)				

11

### 3M<sup>TM</sup> Scotchcast<sup>TM</sup> Flame-Retardant Compound 2131 (Part A)

05/22/18

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene Association

CMRG: Chemical Manufacturer's Recommended Guidelines

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

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

CEIL: Ceiling

#### 8.2. Exposure controls

#### 8.2.1. Engineering controls

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

#### 8.2.2. Personal protective equipment (PPE)

#### Eye/face protection

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

**Indirect Vented Goggles** 

## 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: Butyl Rubber

Fluoroelastomer

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 – Butyl rubber 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 supplied-air respirator

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

General Physical Form: Liquid

Odor, Color, Grade: Light straw colored liquid with pungent odor.

Odor threshold

PH

Not Applicable

Not Applicable

Melting pointNot ApplicableBoiling Point>=300 °F

Flash Point >=300 °F [Test Method:Closed Cup]

**Evaporation rate** No Data Available

**Page 5 of** 11

Flammability (solid, gas) Not Applicable Flammable Limits(LEL) No Data Available Flammable Limits(UEL) No Data Available Vapor Pressure No Data Available **Vapor Density** No Data Available **Density** No Data Available

**Specific Gravity** 1.08 [*Ref Std*:WATER=1]

Solubility in Water Nil

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 700 - 900 centipoise Average particle size No Data Available **Bulk density** No Data Available **Hazardous Air Pollutants** No Data Available Molecular weight No Data Available No Data Available **Softening point** 

10.5 g/l**VOC Less H2O & Exempt Solvents** 

## **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 may occur.

#### 10.4. Conditions to avoid

None known.

## 10.5. Incompatible materials

Strong bases Alcohols

Water

No Data Available

## 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.

## **Eye Contact:**

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

## **Ingestion:**

May be harmful if swallowed.

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

#### **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 colored skin (cyanosis), sputum production, changes in lung function tests, and/or respiratory failure.

## Carcinogenicity:

<u>Ingredient</u>	CAS No.	Class Description	Regulation
4-VINYLCYCLOHEXENE	100-40-3	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

#### **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 ATE2,000 - 5,000 mg/kg
POLYETHER-HYDROCARBON-URETHANE POLYMER	Dermal		LD50 estimated to be > 5,000 mg/kg
POLYETHER-HYDROCARBON-URETHANE POLYMER	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
P,P'-METHYLENEBIS(PHENYL ISOCYANATE)	Dermal	Rabbit	LD50 > 5,000 mg/kg
P,P'-METHYLENEBIS(PHENYL ISOCYANATE)	Inhalation-	Rat	LC50 0.368 mg/l
	Dust/Mist		

**Page** 7 **of** 11

	(4 hours)		
P,P'-METHYLENEBIS(PHENYL ISOCYANATE)	Ingestion	Rat	LD50 31,600 mg/kg
DIUNDECYL PHTHALATE	Dermal	Rabbit	LD50 > 7,900 mg/kg
DIUNDECYL PHTHALATE	Ingestion	Rat	LD50 > 15,000 mg/kg
1,1'-METHYLENEBIS(ISOCYANATOBENZENE)	Dermal	Rabbit	LD50 > 5,000 mg/kg
1,1'-METHYLENEBIS(ISOCYANATOBENZENE)	Inhalation-	Rat	LC50 0.368 mg/l
	Dust/Mist		
	(4 hours)		
1,1'-METHYLENEBIS(ISOCYANATOBENZENE)	Ingestion	Rat	LD50 31,600 mg/kg
4-VINYLCYCLOHEXENE	Dermal		LD50 estimated to be > 5,000 mg/kg
4-VINYLCYCLOHEXENE	Ingestion	Rat	LD50 6,300 mg/kg

ATE = acute toxicity estimate

## Skin Corrosion/Irritation

Name	Species	Value
P,P'-METHYLENEBIS(PHENYL ISOCYANATE)	official	Irritant
	classifica	
	tion	
1,1'-METHYLENEBIS(ISOCYANATOBENZENE)	official	Irritant
	classifica	
	tion	
4-VINYLCYCLOHEXENE	Rabbit	Irritant

**Serious Eye Damage/Irritation** 

Name	Species	Value
P,P'-METHYLENEBIS(PHENYL ISOCYANATE)	official	Severe irritant
	classifica	
	tion	
1,1'-METHYLENEBIS(ISOCYANATOBENZENE)	official	Severe irritant
	classifica	
	tion	
4-VINYLCYCLOHEXENE	Rabbit	Mild irritant

## **Skin Sensitization**

Name	Species	Value
P,P'-METHYLENEBIS(PHENYL ISOCYANATE)	official	Sensitizing
	classifica	
	tion	
1,1'-METHYLENEBIS(ISOCYANATOBENZENE)	official	Sensitizing
	classifica	
	tion	

**Respiratory Sensitization** 

Name	Species	Value
P,P'-METHYLENEBIS(PHENYL ISOCYANATE)	Human	Sensitizing
1,1'-METHYLENEBIS(ISOCYANATOBENZENE)	Human	Sensitizing

Germ Cell Mutagenicity

Name	Route	Value
P,P'-METHYLENEBIS(PHENYL ISOCYANATE)	In Vitro	Some positive data exist, but the data are not
		sufficient for classification
1,1'-METHYLENEBIS(ISOCYANATOBENZENE)	In Vitro	Some positive data exist, but the data are not
		sufficient for classification
4-VINYLCYCLOHEXENE	In Vitro	Not mutagenic
4-VINYLCYCLOHEXENE	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
------	-------	---------	-------

**Page** 8 **of** 11

P,P'-METHYLENEBIS(PHENYL ISOCYANATE)	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
1,1'-METHYLENEBIS(ISOCYANATOBENZENE)	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
4-VINYLCYCLOHEXENE	Ingestion	Mouse	Carcinogenic

## **Reproductive Toxicity**

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
P,P'-METHYLENEBIS(PHENYL ISOCYANATE)	Inhalation	Not classified for development	Rat	NOAEL 0.004 mg/l	during organogenesi s
1,1'- METHYLENEBIS(ISOCYANATOBENZE NE)	Inhalation	Not classified for development	Rat	NOAEL 0.004 mg/l	during organogenesi s
4-VINYLCYCLOHEXENE	Ingestion	Not classified for male reproduction	Mouse	NOAEL 500 mg/kg/day	13 weeks
4-VINYLCYCLOHEXENE	Ingestion	Toxic to female reproduction	Mouse	NOAEL 600 mg/kg/day	13 weeks
4-VINYLCYCLOHEXENE	Inhalation	Toxic to female reproduction	Mouse	NOAEL 1.1 mg/l	13 weeks

## Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure
						Duration
P,P'-	Inhalation	respiratory irritation	May cause respiratory irritation	official	NOAEL Not	
METHYLENEBIS(PHEN				classifica	available	
YL ISOCYANATE)				tion		
1,1'-	Inhalation	respiratory irritation	May cause respiratory irritation	official	NOAEL Not	
METHYLENEBIS(ISOCY				classifica	available	
ANATOBENZENE)				tion		
4-	Inhalation	respiratory irritation	Some positive data exist, but the	similar	NOAEL NA	
VINYLCYCLOHEXENE			data are not sufficient for	health		
			classification	hazards		

**Specific Target Organ Toxicity - repeated exposure** 

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
P,P'- METHYLENEBIS(PHEN YL ISOCYANATE)	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.004 mg/l	13 weeks
1,1'- METHYLENEBIS(ISOCY ANATOBENZENE)	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.004 mg/l	13 weeks
4- VINYLCYCLOHEXENE	Inhalation	liver   kidney and/or bladder	Not classified	Rat	NOAEL 4.4 mg/l	13 weeks
4- VINYLCYCLOHEXENE	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 800 mg/kg/day	13 weeks

## **Aspiration Hazard**

Name	Value
4-VINYLCYCLOHEXENE	Aspiration hazard

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**

Page 9 of 11

## **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 waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration 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): Not regulated

## **SECTION 14: Transport Information**

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

# **SECTION 15: Regulatory information**

### 15.1. US Federal Regulations

Contact 3M for more information.

## **EPCRA 311/312 Hazard Classifications:**

Physical Hazards

Not applicable

## **Health Hazards**

Respiratory or Skin Sensitization

Serious eye damage or eye irritation

Skin Corrosion or Irritation

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):

<u>Ingredient</u> <u>C.A.S. No</u> % by Wt

P,P'-METHYLENEBIS(PHENYL ISOCYANATE) 101-68-8 Trade Secret 25 - 35

#### 15.2. State Regulations

Contact 3M for more information.

## 15.3. Chemical Inventories

The components of this material are in compliance with the China "Measures on Environmental Management of New

Page 10 of 11

Chemical Substance". 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. 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.

#### **HMIS Hazard Classification**

**Health:** 2 Flammability: 1 Physical Hazard: 0 Personal Protection: X - See PPE section.

Hazardous Material Identification System (HMIS® IV) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS® IV ratings are to be used with a fully implemented HMIS® IV program. HMIS® is a registered mark of the American Coatings Association (ACA).

 Document Group:
 28-7650-6
 Version Number:
 6.00

 Issue Date:
 05/22/18
 Supercedes Date:
 09/13/17

### Reason for Reissue

Conversion to GHS format SDS.

DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued.3MMAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3Mproduct 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 3Mproduct, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3Mproduct to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3Mprovides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information,3Mmakes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the SDS available directly from3M

## 3M USA SDSs are available at www.3M.com

**Page 11 of** 11



## **Safety Data Sheet**

Copyright, 2018, 3M Company.

All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

Document Group:28-7666-2Version Number:3.00Issue Date:05/22/18Supercedes Date:09/13/17

## **SECTION 1: Identification**

#### 1.1. Product identifier

3M<sup>TM</sup> Scotchcast<sup>TM</sup> Flame Retardant Resin 2131 (PART B)

## **Product Identification Numbers**

ID Number UPC ID Number UPC

80-6114-6841-6 00051128591826 80-6116-1288-0

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

#### Recommended use

Electrical, Part B of two part electrical resin

1.3. Supplier's details

MANUFACTURER: 3M

**DIVISION:** Electrical Markets Division

ADDRESS: 3M Center, St. Paul, MN 55144-1000, USA

**Telephone:** 1-888-3M HELPS (1-888-364-3577)

### 1.4. Emergency telephone number

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

## **SECTION 2: Hazard identification**

#### 2.1. Hazard classification

Serious Eye Damage/Irritation: Category 1.

Carcinogenicity: Category 2.

### 2.2. Label elements

## Signal word

Danger

#### **Symbols**

Corrosion | Health Hazard |

## **Pictograms**



#### **Hazard Statements**

Causes serious eye damage. Suspected of causing cancer.

## **Precautionary Statements**

#### **Prevention:**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Wear protective gloves and eye/face protection.

#### **Response:**

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 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.

8% of the mixture consists of ingredients of unknown acute oral toxicity.

48% of the mixture consists of ingredients of unknown acute dermal toxicity.

95% of the mixture consists of ingredients of unknown acute inhalation toxicity.

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

Ingredient	C.A.S. No.	% by Wt
HOMOPOLYMER	69102-90-5	20 - 30 Trade Secret *
Bis(pentabromo Phenyl)ethane	84852-53-9	22 - 25 Trade Secret *
DIUNDECYL PHTHALATE, BRANCHED AND	85507-79-5	10 20 Trade Secret *
LINEAR		
ALUMINUM POTASSIUM SODIUM SILICATE	12736-96-8	1 - 10 Trade Secret *
ANTIMONY PENTAOXIDE	1314-60-9	5 - 10 Trade Secret *
CASTOR OIL	8001-79-4	1 - 10 Trade Secret *
DIPROPYLENE GLYCOL	25265-71-8	1 - 10 Trade Secret *
N,N-DI(2-HYDROXYPROPYL)ANILINE	3077-13-2	1 - 10 Trade Secret *
POLYPROPYLENE ETHER DIOL	25322-69-4	1 - 10 Trade Secret *
CARBON BLACK	1333-86-4	1 - 5 Trade Secret *
HYDROCINNAMIC ACID, 3,5-DI-TERT-BUTYL-4-	2082-79-3	< 1.0 Trade Secret *
HYDROXY-, OCTADECYL ESTER		
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-,	68909-20-6	0.5 - 1 Trade Secret *
hydrolysis products with silica		
TRIETHYLENEDIAMINE	280-57-9	< 1.0 Trade Secret *

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

**Page 2 of** 12

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:**

Wash with soap and water. If signs/symptoms develop, get medical attention.

#### **Eye Contact:**

Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately get medical attention.

#### If Swallowed:

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

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

See Section 11.1. Information on toxicological effects.

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

Not applicable

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

#### 5.1. Suitable extinguishing media

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

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

None inherent in this product.

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

SubstanceConditionCarbon monoxideDuring CombustionCarbon dioxideDuring CombustionOxides of NitrogenDuring CombustionOxides of AntimonyDuring Combustion

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

No special protective actions for fire-fighters are anticipated.

## **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.

**Page** 3 of 12

#### 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.

Refer to Section 15 for additional information

## **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

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. Avoid release to the environment. Use personal protective equipment (gloves, respirators, etc.) as required.

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

Keep container tightly closed. Keep cool. Store away from heat. Store in a dry place.

## **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
CARBON BLACK	1333-86-4	ACGIH	TWA(inhalable fraction):3	A3: Confirmed animal
			mg/m3	carcin.
CARBON BLACK	1333-86-4	OSHA	TWA:3.5 mg/m3	
POLYPROPYLENE ETHER	25322-69-4	AIHA	TWA(as aerosol):10 mg/m3	
DIOL				

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 with appropriate local exhaust ventilation. Provide appropriate local exhaust ventilation on open containers.

## 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** 

D 4 e 1/

#### Skin/hand protection

No chemical protective gloves are required.

### 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.

Refer to Section 15 for additional information

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

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

General Physical Form: Liquid

Odor, Color, Grade: Smooth black liquid with pungent odor.

**Odor threshold** No Data Available pН Not Applicable Melting point Not Applicable **Boiling Point**  $> 290 \, {}^{\circ}\text{F}$ 

**Flash Point** > 290 °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 < 27 psia [@ 131 °F] **Vapor Density** No Data Available Density No Data Available **Specific Gravity** 1.29 [*Ref Std*:WATER=1]

Solubility in Water

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 5,500 centipoise Molecular weight No Data Available

**VOC Less H2O & Exempt Solvents** 12.9 g/l

# **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.

Page 5 of 12

#### 10.4. Conditions to avoid

None known.

### 10.5. Incompatible materials

None known.

## 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.

May cause additional health effects (see below).

#### **Skin Contact:**

Contact with the skin during product use is not expected to result in significant irritation.

#### **Eye Contact:**

Corrosive (Eye Burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

#### **Ingestion:**

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

## **Additional Health Effects:**

## Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

Ingredient	CAS No.	Class Description	Regulation
CARBON BLACK	1333-86-4	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

### **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.

Page 6 of 12

**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 ATE >12.5 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
HOMOPOLYMER	Dermal		LD50 estimated to be > 5,000 mg/kg
HOMOPOLYMER	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
POLYPROPYLENE ETHER DIOL	Dermal	Rabbit	LD50 > 10,000 mg/kg
POLYPROPYLENE ETHER DIOL	Ingestion	Rat	LD50 > 2,000 mg/kg
N,N-DI(2-HYDROXYPROPYL)ANILINE	Dermal	Rabbit	LD50 > 2,000 mg/kg
N,N-DI(2-HYDROXYPROPYL)ANILINE	Ingestion	Rat	LD50 3,800 mg/kg
CASTOR OIL	Dermal		LD50 estimated to be > 5,000
CASTOR OIL	Ingestion		LD50 estimated to be > 5,000
DIPROPYLENE GLYCOL	Dermal	Rabbit	LD50 > 5,010 mg/kg
DIPROPYLENE GLYCOL	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 2.34 mg/l
DIPROPYLENE GLYCOL	Ingestion	Rat	LD50 > 5,010 mg/kg
CARBON BLACK	Dermal	Rabbit	LD50 > 3,000 mg/kg
CARBON BLACK	Ingestion	Rat	LD50 > 8,000 mg/kg
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
TRIETHYLENEDIAMINE	Dermal	Rabbit	LD50 > 3,200 mg/kg
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica	Ingestion	Rat	LD50 > 5,110 mg/kg
TRIETHYLENEDIAMINE	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 5.05 mg/l
TRIETHYLENEDIAMINE	Ingestion	Rat	LD50 1,870 mg/kg
HYDROCINNAMIC ACID, 3,5-DI-TERT-BUTYL-4- HYDROXY-, OCTADECYL ESTER	Dermal	Rat	LD50 > 2,000 mg/kg
HYDROCINNAMIC ACID, 3,5-DI-TERT-BUTYL-4- HYDROXY-, OCTADECYL ESTER	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 1.8 mg/l
HYDROCINNAMIC ACID, 3,5-DI-TERT-BUTYL-4- HYDROXY-, OCTADECYL ESTER	Ingestion	Rat	LD50 > 5,000 mg/kg

 $\overline{ATE}$  = acute toxicity estimate

## Skin Corrosion/Irritation

Name		Value
POLYPROPYLENE ETHER DIOL	Rabbit	No significant irritation
N,N-DI(2-HYDROXYPROPYL)ANILINE	Professio	Minimal irritation
	nal	
	judgeme	
	nt	
CASTOR OIL	Human	Minimal irritation
DIPROPYLENE GLYCOL	Rabbit	No significant irritation
CARBON BLACK	Rabbit	No significant irritation
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica	Rabbit	No significant irritation
TRIETHYLENEDIAMINE	Rabbit	Mild irritant
HYDROCINNAMIC ACID, 3,5-DI-TERT-BUTYL-4-HYDROXY-,	Rabbit	Minimal irritation
OCTADECYL ESTER		

**Serious Eye Damage/Irritation** 

Name	Species	Value
POLYPROPYLENE ETHER DIOL	Rabbit	No significant irritation

**Page 7 of** 12

3M <sup>TM</sup> Scotchcast <sup>TM</sup> Flame Retardant Resin 2131 (	(PART B)	05/22/18
--	----------	----------

N,N-DI(2-HYDROXYPROPYL)ANILINE	Professio	Corrosive
	nal	
	judgeme	
	nt	
CASTOR OIL	Rabbit	Mild irritant
DIPROPYLENE GLYCOL	Rabbit	No significant irritation
CARBON BLACK	Rabbit	No significant irritation
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica	Rabbit	No significant irritation
TRIETHYLENEDIAMINE	Rabbit	Corrosive
HYDROCINNAMIC ACID, 3,5-DI-TERT-BUTYL-4-HYDROXY-,	Rabbit	Mild irritant
OCTADECYL ESTER		

### **Skin Sensitization**

Name	Species	Value
CASTOR OIL	Human	Not classified
DIPROPYLENE GLYCOL	Guinea	Not classified
	pig	
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica	Human	Not classified
	and	
	animal	
HYDROCINNAMIC ACID, 3,5-DI-TERT-BUTYL-4-HYDROXY-,	Human	Not classified
OCTADECYL ESTER	and	
	animal	

## **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
Name	Route	value
CASTOR OIL	In Vitro	Not mutagenic
CASTOR OIL	In vivo	Not mutagenic
DIPROPYLENE GLYCOL	In Vitro	Not mutagenic
DIPROPYLENE GLYCOL	In vivo	Not mutagenic
CARBON BLACK	In Vitro	Not mutagenic
CARBON BLACK	In vivo	Some positive data exist, but the data are not
		sufficient for classification
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with	In Vitro	Not mutagenic
silica		
HYDROCINNAMIC ACID, 3,5-DI-TERT-BUTYL-4-HYDROXY-,	In Vitro	Not mutagenic
OCTADECYL ESTER		
HYDROCINNAMIC ACID, 3,5-DI-TERT-BUTYL-4-HYDROXY-,	In vivo	Not mutagenic
OCTADECYL ESTER		_

## Carcinogenicity

Name	Route	Species	Value
DIPROPYLENE GLYCOL	Ingestion	Multiple	Not carcinogenic
		animal	
		species	
CARBON BLACK	Dermal	Mouse	Not carcinogenic
CARBON BLACK	Ingestion	Mouse	Not carcinogenic
CARBON BLACK	Inhalation	Rat	Carcinogenic
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis	Not	Mouse	Some positive data exist, but the data are not
products with silica	Specified		sufficient for classification
HYDROCINNAMIC ACID, 3,5-DI-TERT-BUTYL-4-	Ingestion	Mouse	Not carcinogenic
HYDROXY-, OCTADECYL ESTER			

## **Reproductive Toxicity**

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
DIPROPYLENE GLYCOL	Ingestion	Not classified for development	Rat	NOAEL 5,000	during

Page 8 of 12

				mg/kg/day	organogenesi s
Silanamine, 1,1,1-trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Silanamine, 1,1,1-trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Silanamine, 1,1,1-trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesi s
HYDROCINNAMIC ACID, 3,5-DI-TERT- BUTYL-4-HYDROXY-, OCTADECYL ESTER	Ingestion	Not classified for female reproduction	Rat	NOAEL 421 mg/kg/day	2 generation
HYDROCINNAMIC ACID, 3,5-DI-TERT- BUTYL-4-HYDROXY-, OCTADECYL ESTER	Ingestion	Not classified for male reproduction	Rat	NOAEL 375 mg/kg/day	2 generation
HYDROCINNAMIC ACID, 3,5-DI-TERT- BUTYL-4-HYDROXY-, OCTADECYL ESTER	Ingestion	Not classified for development	Rat	NOAEL 421 mg/kg/day	2 generation

## Target Organ(s)

## **Specific Target Organ Toxicity - single exposure**

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

**Specific Target Organ Toxicity - repeated exposure** 

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
CASTOR OIL	Ingestion	heart   hematopoietic system   liver	Not classified	Rat	NOAEL 4,800 mg/kg/day	13 weeks
CASTOR OIL	Ingestion	kidney and/or bladder	Not classified	Mouse	NOAEL 13,000 mg/kg/day	13 weeks
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 system   nervous system   vascular system	Not classified	Rat	NOAEL 3,040 mg/kg/day	105 weeks
CARBON BLACK	Inhalation	pneumoconiosis	Not classified	Human	NOAEL Not available	occupational exposure
Silanamine, 1,1,1- trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica	Inhalation	respiratory system   silicosis	Not classified	Human	NOAEL Not available	occupational exposure
HYDROCINNAMIC ACID, 3,5-DI-TERT- BUTYL-4-HYDROXY-, OCTADECYL ESTER	Ingestion	liver   kidney and/or bladder   heart   endocrine system   respiratory system	Not classified	Rat	NOAEL 300 mg/kg/day	28 days
HYDROCINNAMIC ACID, 3,5-DI-TERT- BUTYL-4-HYDROXY-,	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days

**Page** 9 of 12

## OCTADECYL ESTER

### **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.

Refer to Section 15 for additional information

## **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.

Refer to Section 15 for additional information

## **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. Proper destruction may require the use of additional fuel during incineration processes. 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): Not regulated

Refer to Section 15 for additional information

## **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

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** ANTIMONY PENTAOXIDE (ANTIMONY COMPOUNDS)

C.A.S. No 1314-60-9

This material contains a chemical which requires export notification under TSCA Section 12[b]:

**Ingredient (Category if applicable)** 

C.A.S. No

Regulation

Status

Bis(pentabromo Phenyl)ethane

84852-53-9

Toxic Substances Control Act (TSCA) 5

Applicable

SNUR or Consent Order Chemicals

### This material contains a chemical regulated by an EPA Significant New Use Rule (TSCA Section 5)

**Ingredient (Category if applicable)** 

C.A.S. No

Reference

Bis(pentabromo Phenyl)ethane

84852-53-9

40 CFR 721.536

### **Additional TSCA Information**

Components	CAS No	Additional Information
Bis(pentabromo Phenyl)ethane		This substance may cause: Cancer. When using this substance: Use respiratory protection. Use skin protection. This substance may be: Toxic to aquatic organisms. Notice to users: Do not release to water.

#### 15.2. State Regulations

Contact 3M for more information.

## 15.3. Chemical Inventories

The components of this material are in compliance with the China "Measures on Environmental Management of New Chemical Substance". Certain restrictions may apply. Contact the selling division for additional information.

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

Contact 3M for more information.

#### 15.4. International Regulations

Contact 3M for more information.

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

## **SECTION 16: Other information**

#### NFPA Hazard Classification

Health: 2 Flammability: 1 Instability: 0 Special Hazards: None

Page 11 of

12

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.

#### **HMIS Hazard Classification**

**Health:** 2 Flammability: 1 Physical Hazard: 0 Personal Protection: X - See PPE section.

Hazardous Material Identification System (HMIS® IV) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS® IV ratings are to be used with a fully implemented HMIS® IV program. HMIS® is a registered mark of the American Coatings Association (ACA).

 Document Group:
 28-7666-2
 Version Number:
 3.00

 Issue Date:
 05/22/18
 Supercedes Date:
 09/13/17

#### Reason for Reissue

Conversion to GHS format SDS.

DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued.3MMAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3Mproduct 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 3Mproduct, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3Mproduct to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3Mprovides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information,3Mmakes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the SDS available directly from3M

3M USA SDSs are available at www.3M.com

**Page** 12 of 12