



Safety Data Sheet

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SECTION 1: Identification

1.1. Product identifier

3M™ Scotchcast™ Soft Cast Standard Colors

Product Identification Numbers

70-2007-0024-6, 70-2007-0025-3, 70-2007-0026-1, 70-2007-0027-9, 70-2007-0028-7, 70-2007-0029-5, 70-2007-0030-3, 70-2007-0031-1, 70-2007-0032-9, 70-2007-0033-7, 70-2007-0034-5, 70-2007-0035-2, 70-2007-0036-0, 70-2007-0037-8, 70-2007-0038-6, 70-2007-0088-1, 70-2007-0089-9, 70-2007-0090-7, 70-2007-0091-5, 70-2007-0092-3, YP-2060-6000-3, YP-2060-6001-1, YP-2060-6002-9, YP-2060-6003-7, YP-2060-6004-5, YP-2060-6005-2, YP-2060-6006-0, YP-2060-6007-8, YP-2060-6008-6, YP-2060-6009-4, YP-2060-6010-2, YP-2060-6011-0, YP-2060-6012-8, YP-2060-6013-6, YP-2060-6014-4, YP-2060-6015-1, YP-2060-6016-9

1.2. Recommended use and restrictions on use

Recommended use

Casting tape for orthopedic use, Immobilization of upper and lower extremities

1.3. Supplier's details

MANUFACTURER:	3M
DIVISION:	3M Poland Infection Prevention 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

Respiratory Sensitizer: Category 1.

Skin Sensitizer: Category 1.

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

2.2. Label elements

Signal word

Danger

Symbols

Health Hazard |

Pictograms



Hazard Statements

May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 May cause an allergic skin reaction.

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

Precautionary Statements

Prevention:

Do not breathe dust/fume/gas/mist/vapors/spray.
 In case of inadequate ventilation wear respiratory 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: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
 IF ON SKIN: Wash with plenty of soap and water.
 If skin irritation or rash occurs: Get medical advice/attention.
 Wash contaminated clothing before reuse.
 Get medical advice/attention if you feel unwell.

Disposal:

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

61% of the mixture consists of ingredients of unknown acute inhalation toxicity.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Glass yarn	65997-17-3	40 - 70 Trade Secret *
4,4'-DIPHENYLMETHANE DIISOCYANATE-POLYPROPYLENE GLYCOL POLYMER	9048-57-1	15 - 40 Trade Secret *
2,2'-Dimorpholinodiethyl ether	6425-39-4	1 - 5 Trade Secret *
4,4'-Diphenylmethane diisocyanate	26447-40-5	1 - 5 Trade Secret *
BHT - Butylated hydroxytoluene	128-37-0	0.1 - 1 Trade Secret *

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

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

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

Skin Contact:

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

Eye Contact:

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, 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

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

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

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. 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 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. Wash contaminated clothing before reuse. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.)

7.2. Conditions for safe storage including any incompatibilities

Keep container tightly closed. Store away from heat. Store away from strong bases. Store away from oxidizing agents. Store away from amines.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
BHT - Butylated hydroxytoluene	128-37-0	ACGIH	TWA(inhalable fraction and vapor):2 mg/m3	A4: Not class. as human carcin

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

None required.

Skin/hand protection

Gloves providing sufficient protection must be worn while applying the casting tape. E.g. nitrile gloves with a minimum thickness of 0.127 mm (5 mil, 0.005 inch) have proven to provide effective protection. The cast surface should be free of monomer and polymer isocyanate within 30 minutes when proper wetting techniques are used.

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 – 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: Results from air sampling during simulated product application show that vapours of methylenediphenyl-diisocyanate as used in the product are not detectable during use in Health Care facility cast rooms. Detection limits were extremely low and far below international safety recommendations for working with isocyanates. Under normal use conditions, airborne exposures are not expected to be significant enough to require respiratory protection. People with bronchial problems or with isocyanate sensitivity may still respond to low isocyanate concentrations. In general it is recommended to use synthetic casting material in rooms with normal general/dilution ventilation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

General Physical Form:	Solid
Specific Physical Form:	Paste imbedded on knit fiberglass.
Odor, Color, Grade:	Liquid resin impregnated on knit fiberglass; slight odor; color varies.
Odor threshold	<i>No Data Available</i>
pH	<i>Not Applicable</i>
Melting point	<i>No Data Available</i>
Boiling Point	<i>No Data Available</i>
Flash Point	<i>Not Applicable</i>
Evaporation rate	<i>Not Applicable</i>
Flammability (solid, gas)	Not Classified
Flammable Limits(LEL)	<i>Not Applicable</i>
Flammable Limits(UEL)	<i>Not Applicable</i>
Vapor Pressure	≤ 27 psia [<i>@ 131 °F</i>]
Vapor Density	<i>Not Applicable</i>
Density	1.09 g/ml
Specific Gravity	1.09 [<i>Ref Std: WATER=1</i>]
Solubility in Water	Nil
Solubility- non-water	<i>No Data Available</i>
Partition coefficient: n-octanol/ water	<i>No Data Available</i>
Autoignition temperature	<i>No Data Available</i>
Decomposition temperature	<i>No Data Available</i>
Viscosity	30 - 1,000,000 centipoise [<i>@ 73.4 °F</i>]
Volatile Organic Compounds	<i>No Data Available</i>
Percent volatile	<i>Not Applicable</i>
VOC Less H2O & Exempt Solvents	<i>No Data Available</i>

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat
Sparks and/or flames

10.5. Incompatible materials

Strong bases
Amines
Alcohols
Strong oxidizing agents

10.6. Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

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

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

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

Inhalation:

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 target organ effects after inhalation. 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:

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

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:

Ingredient	CAS No.	Class Description	Regulation
Generic: GLASS FILAMENTS	65997-17-3	Anticipated human carcinogen	National Toxicology Program Carcinogens

Additional Information:

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

Results from air sampling for simulated dry and wet product application show that vapours of methylenediphenyl-diisocyanate as used in the product are not detectable during use. Detection limits were extremely low and far below international safety recommendations for working with isocyanates. People with bronchial problems or with isocyanate sensitivity may still respond to low isocyanate concentrations.

Direct contact with the cast surface without the use of gloves should be avoided until curing has completed. The cast surface should be free of monomer and polymer isocyanate within 30 minutes when proper wetting techniques are used.

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	Inhalation-Vapor(4 hr)		No data available; calculated ATE >50 mg/l
Overall product	Ingestion		No data available; calculated ATE2,000 - 5,000 mg/kg
Glass yarn	Dermal		LD50 estimated to be > 5,000 mg/kg
Glass yarn	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
4,4'-DIPHENYLMETHANE DIISOCYANATE-POLYPROPYLENE GLYCOL POLYMER	Dermal		LD50 estimated to be > 5,000 mg/kg
4,4'-DIPHENYLMETHANE DIISOCYANATE-POLYPROPYLENE GLYCOL POLYMER	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
4,4'-Diphenylmethane diisocyanate	Dermal	Rabbit	LD50 > 5,000 mg/kg
4,4'-Diphenylmethane diisocyanate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.368 mg/l
4,4'-Diphenylmethane diisocyanate	Ingestion	Rat	LD50 31,600 mg/kg
2,2'-Dimorpholinodiethyl ether	Dermal	Rabbit	LD50 3,030 mg/kg
2,2'-Dimorpholinodiethyl ether	Ingestion	Rat	LD50 2,020 mg/kg
BHT - Butylated hydroxytoluene	Dermal	Rat	LD50 > 2,000 mg/kg
BHT - Butylated hydroxytoluene	Ingestion	Rat	LD50 > 2,930 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Glass yarn	Professional judgement	No significant irritation
4,4'-Diphenylmethane diisocyanate	official classification	Irritant
2,2'-Dimorpholinodiethyl ether	Rabbit	Mild irritant
BHT - Butylated hydroxytoluene	Human and animal	Minimal irritation

Serious Eye Damage/Irritation

Name	Species	Value
Glass yarn	Professional	No significant irritation

	nal judgeme nt	
4,4'-Diphenylmethane diisocyanate	official classifica tion	Severe irritant
2,2'-Dimorpholinodiethyl ether	Rabbit	Severe irritant
BHT - Butylated hydroxytoluene	Rabbit	Mild irritant

Skin Sensitization

Name	Species	Value
4,4'-Diphenylmethane diisocyanate	official classifica tion	Sensitizing
2,2'-Dimorpholinodiethyl ether	Guinea pig	Not classified
BHT - Butylated hydroxytoluene	Human	Not classified

Respiratory Sensitization

Name	Species	Value
4,4'-Diphenylmethane diisocyanate	Human	Sensitizing

Germ Cell Mutagenicity

Name	Route	Value
Glass yarn	In Vitro	Some positive data exist, but the data are not sufficient for classification
4,4'-Diphenylmethane diisocyanate	In Vitro	Some positive data exist, but the data are not sufficient for classification
2,2'-Dimorpholinodiethyl ether	In Vitro	Not mutagenic
2,2'-Dimorpholinodiethyl ether	In vivo	Not mutagenic
BHT - Butylated hydroxytoluene	In Vitro	Not mutagenic
BHT - Butylated hydroxytoluene	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Glass yarn	Inhalation	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
4,4'-Diphenylmethane diisocyanate	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
BHT - Butylated hydroxytoluene	Ingestion	Multiple animal species	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
4,4'-Diphenylmethane diisocyanate	Inhalation	Not classified for development	Rat	NOAEL 0.004 mg/l	during organogenesis
2,2'-Dimorpholinodiethyl ether	Ingestion	Not classified for female reproduction	Rat	NOAEL 300 mg/kg/day	prematuring into lactation
2,2'-Dimorpholinodiethyl ether	Ingestion	Not classified for male reproduction	Rat	NOAEL 300 mg/kg/day	28 days
2,2'-Dimorpholinodiethyl ether	Ingestion	Not classified for development	Rat	NOAEL 300 mg/kg/day	prematuring into lactation
BHT - Butylated hydroxytoluene	Ingestion	Not classified for female reproduction	Rat	NOAEL 500 mg/kg/day	2 generation
BHT - Butylated hydroxytoluene	Ingestion	Not classified for male reproduction	Rat	NOAEL 500	2 generation

BHT - Butylated hydroxytoluene	Ingestion	Not classified for development	Rat	mg/kg/day NOAEL 100 mg/kg/day	2 generation
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Target Organ(s)**Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
4,4'-Diphenylmethane diisocyanate	Inhalation	respiratory irritation	May cause respiratory irritation	official classification	NOAEL Not available	
2,2'-Dimorpholinodiethyl ether	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Glass yarn	Inhalation	respiratory system	Not classified	Human	NOAEL not available	occupational exposure
4,4'-Diphenylmethane diisocyanate	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.004 mg/l	13 weeks
2,2'-Dimorpholinodiethyl ether	Ingestion	heart endocrine system hematopoietic system liver immune system nervous system kidney and/or bladder respiratory system	Not classified	Rat	NOAEL 300 mg/kg/day	28 days
BHT - Butylated hydroxytoluene	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 250 mg/kg/day	28 days
BHT - Butylated hydroxytoluene	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 500 mg/kg/day	2 generation
BHT - Butylated hydroxytoluene	Ingestion	blood	Not classified	Rat	LOAEL 420 mg/kg/day	40 days
BHT - Butylated hydroxytoluene	Ingestion	endocrine system	Not classified	Rat	NOAEL 25 mg/kg/day	2 generation
BHT - Butylated hydroxytoluene	Ingestion	heart	Not classified	Mouse	NOAEL 3,480 mg/kg/day	10 weeks

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.

During cleanup or disposal of open, uncured product, gloves providing sufficient protection must be worn. E.g. nitrile gloves with a minimum thickness of 0.127 mm (5 mil, 0.005 inch) have proven to provide effective protection. Additionally the following skin protection may be needed: laboratory coat or long-sleeve protective gauntlets. Dispose of completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. If no other disposal options are available, waste product that has been completely cured or polymerized may be placed in a landfill properly designed for industrial waste. 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

Specific target organ toxicity (single or repeated exposure)

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

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

SECTION 16: Other information

NFPA Hazard Classification

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

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

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).

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