

Safety Data Sheet

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SECTION 1: Identification

1.1. Product identifier

3MTM Phototool Protector PPC-200

Product Identification Numbers

70-0051-8525-4

1.2. Recommended use and restrictions on use

Recommended use

Protective hard coat for flexible substrates.

Restrictions on use

For Industrial or Professional Use Only.

1.3. Supplier's details

MANUFACTURER: 3M

DIVISION: Home Care 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 4.

Serious Eye Damage/Irritation: Category 1.

Skin Sensitizer: Category 1B.

Specific Target Organ Toxicity (repeated exposure): Category 2.

2.2. Label elements

Signal word

Danger

Symbols

Corrosion | Exclamation mark | Health Hazard |

Pictograms

Page 1 of 11



Hazard Statements

Combustible liquid.

Causes serious eye damage.

May cause an allergic skin reaction.

May cause damage to organs through prolonged or repeated exposure: sensory organs

Precautionary Statements

Prevention:

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

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

Wear protective gloves and eye/face protection.

Contaminated work clothing must not be allowed out of the workplace.

Response:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

IF 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.

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

extinguish.

Storage:

Store in a well-ventilated place. Keep cool.

Disposal:

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

2.3. Hazards not otherwise classified

This product may release methanol (CAS 67-56-1) during end use or when exposed to moisture or humid air.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Antimonate(1-), Hexafluoro-, (Oc-6-11)-, (Thiodi-4,1-	89452-37-9	1 - 7
Phenylene)Bis[Diphenylsulfonium] (2:1)		
Sulfonium, diphenyl[4-(phenylthio)phenyl]-,(OC-6-11)-	71449-78-0	1 - 7
hexafluoroantimonate(1-) (1:1)		
Polyether Modified Dimethylpolysiloxane _ NJTS	Trade Secret*	< 3
(EIN) 04499600-5023		
Cycloaliphatic Epoxy Resin _ NJTS (EIN) 04499600-	Trade Secret*	Trade Secret *
6736		
Propylene Carbonate	108-32-7	Trade Secret *
Aliphatic ether _ NJTS (EIN) 04499600-6733	Trade Secret*	Trade Secret *

NJTS or NJTSRN: New Jersey Trade Secret Registry Number.

*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 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 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.

Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Hydrocarbons	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Hydrogen Fluoride	During Combustion
Irritant Vapors or Gases	During Combustion
Oxides of Antimony	During Combustion
Oxides of Sulfur	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. When fire fighting conditions are severe and total thermal decomposition of the product is possible, wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. 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. 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 closed container approved for transportation by appropriate authorities. Clean up residue with detergent and water. Seal the container. Dispose of collected material as soon as possible.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not breathe thermal decomposition products. For industrial or professional use only. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. 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.)

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. Store away from heat. Store away from acids. Store away from strong bases. Store away from oxidizing agents.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

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

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
ANTIMONY COMPOUNDS	71449-78-0	ACGIH	TWA(as Sb):0.5 mg/m3	
ANTIMONY COMPOUNDS	71449-78-0	OSHA	TWA(as Sb):0.5 mg/m3	
ANTIMONY COMPOUNDS	89452-37-9	ACGIH	TWA(as Sb):0.5 mg/m3	
ANTIMONY COMPOUNDS	89452-37-9	OSHA	TWA(as Sb):0.5 mg/m3	
Aliphatic ether _ NJTS (EIN)	Trade	CMRG	TWA:5 ppm	
04499600-6733	Secret			

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

Page 4 of 11

8.2.1. Engineering controls

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

8.2.2. Personal protective equipment (PPE)

Eye/face protection

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

Full Face Shield

Indirect Vented Goggles

Skin/hand protection

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

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

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron – Butyl rubber

Respiratory protection

Use a positive pressure supplied-air respirator if there is a potential for over exposure from an uncontrolled release, exposure levels are not known, or under any other circumstances where air-purifying respirators may not provide adequate 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:

During heating:

Use a positive pressure supplied-air respirator if there is a potential for over exposure from an uncontrolled release, exposure levels are not known, or under any other circumstances where air-purifying respirators may not provide adequate protection.

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: Clear, light yellow color with mild odor

Odor threshold No Data Available Not Applicable pН Not Applicable **Melting point Boiling Point** $> 185 \, {}^{\circ}\text{F}$ Flash Point No flash point

Evaporation rate No Data Available Flammability (solid, gas) Not Applicable Flammable Limits(LEL) No Data Available

Page 5 of 11

Flammable Limits(UEL) No Data Available **Vapor Pressure** <=5 mmHg [@ 20 °C] **Vapor Density** >=1 [*Ref Std:* AIR=1] **Density** Approximately 1.1 g/ml

Specific Gravity Approximately 1.1 [Ref Std: WATER=1]

Solubility in Water Moderate [Details: (Components react slowly with water)]

Solubility- non-water No Data Available Partition coefficient: n-octanol/ water No Data Available No Data Available **Autoignition temperature Decomposition temperature** No Data Available Viscosity <=10 centipoise

Volatile Organic Compounds 25 % Percent volatile 25 %

VOC Less H2O & Exempt Solvents No Data Available

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

Sparks and/or flames

Heat

10.5. Incompatible materials

Strong acids

Strong oxidizing agents

Water

Strong bases

10.6. Hazardous decomposition products

Substance Condition

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

Extreme heat arising from situations such as misuse or equipment failure can generate hydrogen fluoride as a decomposition product.

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:

No health effects are expected.

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:

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.

May cause target organ effects after ingestion.

Target Organ Effects:

Prolonged or repeated exposure may cause:

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

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE > 5,000 mg/kg
Aliphatic ether _ NJTS (EIN) 04499600-6733	Dermal	Rabbit	LD50 4,000 mg/kg
Aliphatic ether _ NJTS (EIN) 04499600-6733	Inhalation-	Rat	LC50 > 5.3 mg/l
	Dust/Mist		
	(4 hours)		
Aliphatic ether _ NJTS (EIN) 04499600-6733	Ingestion	Rat	LD50 7,010 mg/kg
Propylene Carbonate	Dermal	Rabbit	LD50 > 3,000 mg/kg
Propylene Carbonate	Ingestion	Rat	LD50 > 5,000 mg/kg
Cycloaliphatic Epoxy Resin _ NJTS (EIN) 04499600-6736	Dermal	Rabbit	LD50 > 23,400 mg/kg
Cycloaliphatic Epoxy Resin _ NJTS (EIN) 04499600-6736	Ingestion	Rat	LD50 5,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Aliphatic ether _ NJTS (EIN) 04499600-6733	Rabbit	Mild irritant
Propylene Carbonate	Rabbit	No significant irritation
Cycloaliphatic Epoxy Resin _ NJTS (EIN) 04499600-6736	Rabbit	Minimal irritation

Serious Eye Damage/Irritation

Name	Species	Value
Aliphatic ether _ NJTS (EIN) 04499600-6733	Rabbit	Corrosive
Propylene Carbonate	Rabbit	Severe irritant
Cycloaliphatic Epoxy Resin _ NJTS (EIN) 04499600-6736	Rabbit	Mild irritant

Skin Sensitization

Name	Species	Value
Aliphatic ether _ NJTS (EIN) 04499600-6733	Guinea	Some positive data exist, but the data are not
	pig	sufficient for classification
Cycloaliphatic Epoxy Resin _ NJTS (EIN) 04499600-6736	Guinea	Sensitizing
	pig	

Respiratory Sensitization

Name	Species	Value

Germ Cell Mutagenicity

Name	Route	Value
Aliphatic ether _ NJTS (EIN) 04499600-6733	In vivo	Not mutagenic
Aliphatic ether _ NJTS (EIN) 04499600-6733	In Vitro	Some positive data exist, but the data are not sufficient for classification
Cycloaliphatic Epoxy Resin _ NJTS (EIN) 04499600-6736	In vivo	Not mutagenic
Cycloaliphatic Epoxy Resin _ NJTS (EIN) 04499600-6736	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Aliphatic ether _ NJTS (EIN) 04499600-6733	Dermal	Mouse	Not carcinogenic
Cycloaliphatic Epoxy Resin _ NJTS (EIN) 04499600-6736	Dermal	Mouse	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Aliphatic ether _ NJTS (EIN) 04499600- 6733	Ingestion	Not toxic to female reproduction	Rat	NOAEL 1,000 mg/kg/day	1 generation
Aliphatic ether _ NJTS (EIN) 04499600-6733	Ingestion	Not toxic to male reproduction	Rat	NOAEL 1,000 mg/kg/day	1 generation
Aliphatic ether _ NJTS (EIN) 04499600-6733	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 3,000 mg/kg/day	during organogenesi s
Cycloaliphatic Epoxy Resin _ NJTS (EIN) 04499600-6736	Ingestion	Not toxic to female reproduction	Rat	NOAEL 500 mg/kg/day	90 days
Cycloaliphatic Epoxy Resin _ NJTS (EIN) 04499600-6736	Ingestion	Not toxic to male reproduction	Rat	NOAEL 500 mg/kg/day	90 days
Cycloaliphatic Epoxy Resin _ NJTS (EIN) 04499600-6736	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 125 mg/kg/day	during gestation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name Route Target Organ(s) Value	Species	Test Result	Exposure Duration
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Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Aliphatic ether _ NJTS (EIN) 04499600-6733	Ingestion	heart endocrine system bone, teeth, nails, and/or hair hematopoietic system liver immune system nervous system kidney and/or bladder respiratory system	All data are negative	Rat	NOAEL 1,000 mg/kg/day	28 days

Cycloaliphatic Epoxy Resin _ NJTS (EIN) 04499600-6736	Ingestion	olfactory system	May cause damage to organs though prolonged or repeated exposure	Rat	NOAEL 5 mg/kg/day	90 days
Cycloaliphatic Epoxy Resin _ NJTS (EIN) 04499600-6736	Ingestion	liver kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 500 mg/kg/day	90 days
Cycloaliphatic Epoxy Resin _ NJTS (EIN) 04499600-6736	Ingestion	hematopoietic system	All data are negative	Rat	NOAEL 500 mg/kg/day	90 days
Cycloaliphatic Epoxy Resin _ NJTS (EIN) 04499600-6736	Ingestion	endocrine system respiratory system	All data are negative	Rat	NOAEL 1,113 mg/kg/day	14 days

Aspiration Hazard

Name	Value

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 in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Combustion products will include halogen acid (HCl/HF/HBr). Facility must be capable of handling halogenated materials. 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

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.

311/312 Hazard Categories:

Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - Yes

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

<u>Ingredient</u>	C.A.S. No	<u>% by Wt</u>
Sulfonium, diphenyl[4-(phenylthio)phenyl]-	71449-78-0	1 - 7
,(OC-6-11)-hexafluoroantimonate(1-) (1:1)		
(ANTIMONY COMPOUNDS)		
Antimonate(1-), Hexafluoro-, (Oc-6-11)-,	89452-37-9	1 - 7
(Thiodi-4,1-Phenylene)Bis[Diphenylsulfonium]		
(2:1) (ANTIMONY COMPOUNDS)		

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

The components of this product are in compliance with the new substance notification requirements of CEPA.

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

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: 3 Flammability: 1 Physical Hazard: 0 Personal Protection: X - See PPE section.

Hazardous Material Identification System (HMIS® III) 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® III ratings are to be used with a fully implemented HMIS® III program. HMIS® is a registered mark of the American Coatings Association (ACA).

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