



Material Safety Data Sheet

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This material safety data sheet (MSDS) is provided as a courtesy in response to a customer request. This product is not regulated under, and a MSDS is not required for this product by the OSHA Hazard Communication Standard (29 CFR 1910.1200) because, when used as recommended or under ordinary conditions, it should not present a health and safety hazard. However, use or processing of the product not in accordance with the product's recommendations or not under ordinary conditions may affect the performance of the product and may present potential health and safety hazards.

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 3M Super 33+ and Super 88 and 37 and 15 Vinyl Electrical Tape-No Lead
MANUFACTURER: 3M
DIVISION: Electrical Markets Division

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

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

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Product Use:

Intended Use: Electrical

SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
POLY(VINYL CHLORIDE)	9002-86-2	40 - 50
Plasticizer	Trade Secret	15 - 30
Rubber adhesive	Trade Secret	10 - 20
Tackifying resin	Trade Secret	5 - 10
DI-C8-10-BRANCHED ALKYL PHTHALATE, C9 RICH	68515-48-0	2 - 3
ANTIMONY TRIOXIDE	1309-64-4	1 - 3
CARBON BLACK	1333-86-4	1 - 3
STABILIZER	Trade Secret	1 - 2

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: Roll of Tape

Odor, Color, Grade: Black adhesive tape, slight odor.

General Physical Form: Solid

Immediate health, physical, and environmental hazards: Contact with aluminum or zinc in a pressurized system may generate hydrogen gas which could create an explosion hazard. The environmental properties of this product present a low environmental hazard. This product, when used under reasonable conditions and in accordance with the 3M directions for use, should not present a health hazard. However, use or processing of the product in a manner not in accordance with the product's directions for use may affect the performance of the product and may present potential health and safety hazards.

3.2 POTENTIAL HEALTH EFFECTS

Eye Contact:

No health effects are expected.

Skin Contact:

No health effects are expected.

Inhalation:

No health effects are expected.

Ingestion:

No health effects are expected.

Carcinogenicity:

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>Class Description</u>	<u>Regulation</u>
ANTIMONY TRIOXIDE	1309-64-4	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Arsenic	7440382	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer
Arsenic	7440382	Cancer hazard	OSHA Carcinogens
ARSENIC COMPOUNDS	S~AS~C	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer
ARSENIC COMPOUNDS, INORGANIC	S~AS~I	Known human carcinogen	National Toxicology Program Carcinogens
ARSENIC COMPOUNDS, INORGANIC	S~AS~I	Cancer hazard	OSHA Carcinogens
CARBON BLACK	1333-86-4	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
CARBON BLACK EXTRACTS	NONE	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Ethene, chloro-	75014	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer
Ethene, chloro-	75014	Known human carcinogen	National Toxicology Program Carcinogens
Ethene, chloro-	75014	Cancer hazard	OSHA Carcinogens
Lead	7439921	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Lead	7439921	Anticipated human carcinogen	National Toxicology Program Carcinogens
LEAD COMPOUNDS	S~PB~C	Anticipated human carcinogen	National Toxicology Program Carcinogens
POLY(VINYL CHLORIDE)	9002-86-2	Cancer hazard	OSHA Carcinogens

3.3 POTENTIAL ENVIRONMENTAL EFFECTS

This substance does not leach metals or other RCRA (Resource Conservation and Recovery Act) listed TCLP (Toxic Characteristic

Leaching Procedure) hazardous substances at concentrations that would make the product a hazardous waste.

SECTION 4: FIRST AID MEASURES

4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

Eye Contact: No need for first aid is anticipated.

Skin Contact: No need for first aid is anticipated.

Inhalation: No need for first aid is anticipated.

If Swallowed: No need for first aid is anticipated.

SECTION 5: FIRE FIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES

Autoignition temperature	<i>No Data Available</i>
Flash Point	<i>Not Applicable</i>
Flammable Limits - LEL	<i>No Data Available</i>
Flammable Limits - UEL	<i>No Data Available</i>
OSHA Flammability Classification:	<i>Not Applicable</i>

5.2 EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

5.3 PROTECTION OF FIRE FIGHTERS

Special Fire Fighting Procedures: Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

Unusual Fire and Explosion Hazards: Not applicable. No unusual fire or explosion hazards are anticipated. Contact with aluminum or zinc in a pressurized system may generate hydrogen gas which could create an explosion hazard.

Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions

Not applicable.

Environmental procedures

Not applicable.

Clean-up methods

Not applicable.

SECTION 7: HANDLING AND STORAGE

7.1 HANDLING

Keep away from aluminum and zinc. Keep out of the reach of children. This product is considered to be an article which does not release or otherwise result in exposure to a hazardous chemical under normal use conditions. Avoid contact with oxidizing agents. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits. If ventilation is not adequate, use respiratory protection equipment.

7.2 STORAGE

Not applicable. Store away from oxidizing agents.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS

Not applicable.

8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

8.2.1 Eye/Face Protection

Not applicable.

8.2.2 Skin Protection

Not applicable. Avoid skin contact. Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

8.2.3 Respiratory Protection

Under normal use conditions, airborne exposures are not expected to be significant enough to require respiratory protection.

8.2.4 Prevention of Swallowing

Not applicable.

8.3 EXPOSURE GUIDELINES

<u>Ingredient</u>	<u>Authority</u>	<u>Type</u>	<u>Limit</u>	<u>Additional Information</u>
ANTIMONY COMPOUNDS	ACGIH	TWA, as Sb	0.5 mg/m3	
ANTIMONY COMPOUNDS	OSHA	TWA, as Sb	0.5 mg/m3	
ANTIMONY TRIOXIDE	CMRG	TWA, as Sb	0.2 mg/m3	
ANTIMONY TRIOXIDE PRODUCTION	ACGIH	Limit value not established	****Missing Data****	Cntrl all exposr-low as possib
			No UOM specified or needed.	
Arsenic	ACGIH	TWA, as As	0.01 mg/m3	
Arsenic	OSHA	TWA	0.01 mg/m3	29 CFR 1910.1018
ARSENIC COMPOUNDS, INORGANIC	ACGIH	TWA, as As	0.01 mg/m3	

ARSENIC COMPOUNDS, INORGANIC	OSHA	TWA	0.01 mg/m3	29 CFR 1910.1018
CARBON BLACK	ACGIH	TWA	3.5 mg/m3	
CARBON BLACK	CMRG	TWA	0.5 mg/m3	
CARBON BLACK	OSHA	TWA	3.5 mg/m3	
DI-C8-10-BRANCHED ALKYL PHTHALATE, C9 RICH	CMRG	TWA	5 mg/m3	
DUST, INERT OR NUISANCE	ACGIH	TWA, respirable particles	3 mg/m3	
DUST, INERT OR NUISANCE	ACGIH	TWA, inhalable particulates	10 mg/m3	
DUST, INERT OR NUISANCE	OSHA	TWA, respirable fraction	5 mg/m3	
DUST, INERT OR NUISANCE	OSHA	TWA, as total dust	15 mg/m3	
DUST, INERT OR NUISANCE	OSHA	TWA, respirable fraction	15 millions of particles/cu. ft.	
DUST, INERT OR NUISANCE	OSHA	TWA, as total dust	50 millions of particles/cu. ft.	
Ethene, chloro-	ACGIH	TWA	1 ppm	
Ethene, chloro-	OSHA	TWA	1 ppm	Skin Notation*; 29 CFR 1910.1017
Ethene, chloro-	OSHA	STEL	5 ppm	Skin Notation*; 29 CFR 1910.1017
Lead	ACGIH	TWA, as Pb	0.05 mg/m3	
Lead	OSHA	TWA	0.05 mg/m3	29 CFR 1910.1025
Limestone	OSHA	TWA, respirable fraction	5 mg/m3	
Limestone	OSHA	TWA, as total dust	15 mg/m3	
POLY(VINYL CHLORIDE)	ACGIH	TWA, respirable fraction	1 mg/m3	
POLY(VINYL CHLORIDE)	OSHA	TWA, as vinyl chloride monomer	1 ppm	Skin Notation*; 29 CFR 1910.1017
POLY(VINYL CHLORIDE)	OSHA	STEL, as vinyl chloride monomer	5 ppm	Skin Notation*; 29 CFR 1910.1017
STEARATES	ACGIH	TWA	10 mg/m3	

* Substance(s) refer to the potential contribution to the overall exposure by the cutaneous route including mucous membrane and eye, either by airborne or, more particularly, by direct contact with the substance. Vehicles can alter skin absorption.

SOURCE OF EXPOSURE LIMIT DATA:

- ACGIH: American Conference of Governmental Industrial Hygienists
- CMRG: Chemical Manufacturer Recommended Guideline
- OSHA: Occupational Safety and Health Administration
- AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Specific Physical Form:	Roll of Tape
Odor, Color, Grade:	Black adhesive tape, slight odor.
General Physical Form:	Solid
Autoignition temperature	<i>No Data Available</i>
Flash Point	<i>Not Applicable</i>
Flammable Limits - LEL	<i>No Data Available</i>
Flammable Limits - UEL	<i>No Data Available</i>
Boiling point	<i>Not Applicable</i>
Vapor Density	<i>Not Applicable</i>

Vapor Pressure	Not Applicable
Specific Gravity	1.22 g/ml
pH	Not Applicable
Melting point	No Data Available
Solubility in Water	Nil
Evaporation rate	Not Applicable
Volatile Organic Compounds	No Data Available
Kow - Oct/Water partition coef	No Data Available
Percent volatile	Not Applicable
VOC Less H2O & Exempt Solvents	No Data Available
Viscosity	Not Applicable

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid:

10.1 Conditions to avoid

None known

10.2 Materials to avoid

Strong oxidizing agents

None known

Finely divided active metals

Alkali and alkaline earth metals

Reactions with metals in powder form occur from 370 degrees C onwards.

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Hydrocarbons	At Elevated Temperatures
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Hydrogen Chloride	During Combustion
Irritant Vapors or Gases	During Combustion
Oxides of Antimony	During Combustion
Oxides of Zinc	During Combustion

Hazardous Decomposition: Under recommended usage conditions, hazardous decomposition products are not expected. Hazardous decomposition products may occur as a result of oxidation, heating, or reaction with another material.

SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

Not applicable.

CHEMICAL FATE INFORMATION

Not applicable.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Reclaim if feasible. If product can't be reclaimed, dispose of waste product in a sanitary landfill. Alternatively, incinerate the waste product in an industrial, commercial, or municipal incinerator.

EPA Hazardous Waste Number (RCRA): Not regulated

Since regulations vary, consult applicable regulations or authorities before disposal.

SECTION 14: TRANSPORT INFORMATION

ID Number(s):

80-6108-3383-4, 80-6112-6706-5, 80-6112-6707-3, 80-6114-3008-5, 80-6114-3009-3, 80-6114-5763-3

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

SECTION 15: REGULATORY INFORMATION

US FEDERAL REGULATIONS

Contact 3M for more information.

311/312 Hazard Categories:

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

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>	<u>% by Wt</u>
ANTIMONY TRIOXIDE (ANTIMONY COMPOUNDS)	1309-64-4	1 - 3

STATE REGULATIONS

Contact 3M for more information.

CALIFORNIA PROPOSITION 65

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>Classification</u>
ARSENIC COMPOUNDS, INORGANIC	S~AS-I	**Carcinogen
CARBON BLACK EXTRACTS	NONE	**Carcinogen
Arsenic	7440382	**Carcinogen
Ethene, chloro-	75014	**Carcinogen
Lead	7439921	*Female reproductive toxin
Lead	7439921	*Male reproductive toxin
Lead	7439921	**Carcinogen
Lead	7439921	*Developmental Toxin
LEAD COMPOUNDS	S~PB~C	*Female reproductive toxin
LEAD COMPOUNDS	S~PB~C	*Male reproductive toxin
LEAD COMPOUNDS	S~PB~C	**Carcinogen
LEAD COMPOUNDS	S~PB~C	*Developmental Toxin
ANTIMONY TRIOXIDE	1309-64-4	**Carcinogen
CARBON BLACK	1333-86-4	**Carcinogen

* WARNING: contains a chemical or chemicals which can cause birth defects or other reproductive harm.

** WARNING: contains a chemical which can cause cancer.

CHEMICAL INVENTORIES

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

This product is an article as defined by TSCA regulations, and is exempt from TSCA Inventory listing requirements.

Contact 3M for more information.

INTERNATIONAL REGULATIONS

Contact 3M for more information.

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

SECTION 16: OTHER INFORMATION

NFPA Hazard Classification

Health: 0 Flammability: 1 Reactivity: 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: 0 Flammability: 1 Reactivity: 0 Protection: A

Hazardous Material Identification System (HMIS(r)) 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(r) ratings are to be used with a fully implemented HMIS(r) program. HMIS(r) is a registered mark of the National Paint and Coatings Association (NPCA).

Revision Changes:

Section 16: NFPA hazard classification for health was modified.
Section 16: HMIS hazard classification for health was modified.
Copyright was modified.
Section 3: Potential effects from inhalation information was modified.
Section 3: Potential effects from ingestion information was modified.
Section 7: Handling information was modified.
Section 8: Engineering controls information was modified.
Section 8: Eye/face protection phrase was modified.
Section 8: Skin protection phrase was modified.
Section 8: Respiratory protection information was modified.
Section 8: Prevention of swallowing information was modified.
Section 3: Immediate other hazard(s) was modified.
Section 14: Transportation legal text was modified.
Section 15: 311/312 Delayed Hazard score was modified.
Section 9: Property description for optional properties was modified.
Section 15: California proposition 65 reproductive harm warning was added.
Section 4: First aid for eye contact - none - was added.
Section 4: First aid for ingestion (swallowing) - none - was added.
Section 4: First aid for inhalation - none - was added.
Section 4: First aid for skin contact - none - was added.
Section 14: ID Number Heading Template 1 was added.
Section 14: ID Number(s) Template 1 was added.
Section 2: Ingredient table was added.
Section 15: EPCRA 313 information was added.
Section 15: EPCRA 313 text was added.
Section 8: Exposure guidelines ingredient information was added.
Section 8: Exposure guideline note was added.
Section 8: Exposure guidelines data source legend was added.
Section 3: Carcinogenicity table was added.
Section 3: Carcinogenicity heading was added.
Section 15: California proposition 65 ingredient information was added.
Section 15: California proposition 65 heading was added.
Section 15: California proposition 65 cancer warning was added.
Section 6: Environmental procedures heading was added.
Section 6: Personal precautions heading was added.
Section 10.1 Conditions to avoid heading was added.
Section 10.2 Materials to avoid heading was added.
Section 6: Personal precautions information was added.
Section 6: Environmental procedures information was added.
Section 6: Methods for cleaning up information was added.
Section 10: Materials to avoid physical property was added.
Section 10: Conditions to avoid physical property was added.
Section 8: Hand protection information was added.
Section 6: Clean-up methods heading was added.

Section 4: First aid for eye contact - decontamination - was deleted.
Section 4: First aid for eye contact - medical assistance - was deleted.
Section 6: Release measures information was deleted.
Section 6: Release measures heading was deleted.
Section 4: First aid for skin contact - decontamination - was deleted.
Section 4: First aid for skin contact - medical assistance - was deleted.
Section 4: First aid for inhalation - termination of exposure - was deleted.
Section 4: First aid for inhalation - medical assistance - was deleted.
Section 4: First aid for ingestion (swallowing) - decontamination - was deleted.
Section 4: First aid for ingestion (swallowing) - intervention - was deleted.
Section 4: First aid for ingestion (swallowing) - medical assistance - was deleted.
Section 3: Carcinogenicity phrase was deleted.
Section 10: Materials and conditions to avoid physical property was deleted.

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