

Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the SS586 Specification for Hazard Communication for Hazardous Chemicals and Dangerous Goods.

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This safety data sheet (SDS) is provided as a courtesy in response to a customer request. This product is not regulated under, and a SDS is not required for this product by the SS586 Specification for Hazard communication for hazardous chemicals and dangerous goods 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: Identification

1.1. Product identifier

Scotch® Super 33+TM Vinyl Electrical Tape and Scotch® Premium Vinyl Electrical Tape Super 88

1.2. Recommended use and restrictions on use

Recommended use

Electrical

1.3. Supplier's details

Address: 3M Technologies (S) Pte Ltd, 10 Ang Mo Kio Street 65, Singapore 569059

Telephone: +65 6450 8888 **Website:** www.3m.com.sg

1.4. Emergency telephone number

+65 6591 6601 (8.15am - 5.00pm, Monday - Friday)

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

This product is not classified as hazardous per GHS criteria as implemented by Singapore Standard SS586: 2022.

2.2. Label elements

SIGNAL WORD

Not applicable.

Symbols

Not applicable

Pictograms

Not applicable

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

This material is a mixture.

| Ingredient | CAS Nbr | % by Wt |
|--|-----------|---------------|
| Poly(Vinyl Chloride) Tape with Rubber- | Mixture | 90 - 100 |
| Based Adhesive | | |
| Antimony trioxide | 1309-64-4 | 1 - 1.5 |
| Natural rubber | 9006-04-6 | 0.13 - 0.17 |
| Zinc oxide | 1314-13-2 | 0.091 - 0.093 |

Any remaining components do not contribute to the hazards of this material.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

No need for first aid is anticipated. If symptoms develop, remove the affected person to fresh air. Get medical attention.

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

Eye contact

If exposed, flush eyes with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms develop, get medical attention.

If swallowed

Do not induce vomiting. Rinse mouth. If you feel unwell, get medical attention.

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

No critical symptoms or effects. 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

| Substance | Condition |
|----------------------------|--------------------|
| Carbon monoxide. | During combustion. |
| Carbon dioxide. | During combustion. |
| Hydrogen Chloride | During combustion. |
| Irritant vapours or gases. | During combustion. |
| Oxides of antimony. | During combustion. |

Oxides of zinc.

During combustion.

5.3. Special protective actions for fire-fighters

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

Not applicable.

6.2. Environmental precautions

Not applicable.

6.3. Methods and material for containment and cleaning up

Not applicable.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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.

7.2. Conditions for safe storage including any incompatibilities

No special storage requirements.

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 | CAS Nbr | Agency | Limit type | Additional comments |
|--------------------------------|-----------|----------------|------------------------------|-------------------------|
| Antimony trioxide | 1309-64-4 | ACGIH | TWA(inhalable fraction):0.02 | A2: Suspected human |
| | | | mg/m3 | carcin. |
| Antimony trioxide | 1309-64-4 | Singapore PELs | TWA(as Sb)(8 hours):0.5 | |
| | | | mg/m3 | |
| Zinc oxide | 1314-13-2 | ACGIH | TWA(respirable fraction):2 | |
| | | | mg/m3;STEL(respirable | |
| | | | fraction):10 mg/m3 | |
| Zinc oxide | 1314-13-2 | Singapore PELs | TWA(as fume)(8 hours):5 | |
| | | | mg/m3;TWA(as dust)(8 | |
| | | | hours):10 mg/m3;STEL(as | |
| | | | fume)(15 minutes):10 mg/m3 | |
| Natural rubber | 9006-04-6 | ACGIH | TWA(as allergenic protein, | Dermal/Respiratory |
| | | | inhalable fraction):0.0001 | Sensitizer |
| | | | mg/m3 | |
| Poly(Vinyl Chloride) Tape with | Mixture | ACGIH | TWA(respirable fraction):1 | A4: Not class. as human |
| Rubber-Based Adhesive | | | mg/m3 | carcin |

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene Association

CMRG: Chemical Manufacturer's Recommended Guidelines

Singapore PELs: Singapore. Workplace Safety and Health (Permissible Exposure Levels of Toxic Substances) Order

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

No engineering controls required.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Eye protection not required.

Skin/hand protection

No chemical protective gloves are required.

Respiratory protection

Respiratory protection is not required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| Physical state | Solid. | |
|---|-----------------------------------|--|
| Specific Physical Form: | Roll of Tape. | |
| | | |
| Color | Black | |
| Odor | Slight Polyvinyl chloride | |
| Odour threshold | Not applicable. | |
| pH | Not applicable. | |
| Melting point/Freezing point | No data available. | |
| Boiling point/Initial boiling point/Boiling range | Not applicable. | |
| Flash point | Not applicable. | |
| Evaporation rate | Not applicable. | |
| Flammability | Not applicable. | |
| | | |
| Flammable Limits(LEL) | No data available. | |
| Flammable Limits(UEL) | No data available. | |
| Vapour pressure | Not applicable. | |
| Vapor Density and/or Relative Vapor Density | Not applicable. | |
| Density | 1.22 g/cm3 | |
| Relative density | 1.22 [Details:Ref Std: Water = 1] | |
| Water solubility | Nil | |
| Solubility- non-water | Not applicable. | |
| Partition coefficient: n-octanol/water | No data available. | |
| Autoignition temperature | No data available. | |
| Decomposition temperature | Not applicable. | |
| Kinematic Viscosity | Not applicable. | |
| Volatile organic compounds (VOC) | No data available. | |
| Percent volatile | Not applicable. | |
| VOC less H2O & exempt solvents | No data available. | |
| Average particle size | No data available. | |
| Bulk density | No data available. | |

D 4 C 10

| Molecular weight | No data available. |
|------------------|--------------------|
| Softening point | No data available. |

|--|

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 polymerisation will not occur.

10.4 Conditions to avoid

None known.

10.5 Incompatible materials

Strong oxidising agents.

10.6 Hazardous decomposition products

Substance

Condition

Hydrocarbons. At elevated temperatures.

Refer to section 5.2 for hazardous decomposition products during combustion.

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

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 labelling, 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

No health effects are expected.

Eye contact

No health effects are expected.

Ingestion

No health effects are expected.

Additional information:

This product, when used under reasonable conditions and in accordance with the 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.

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 |
| Poly(Vinyl Chloride) Tape with Rubber-Based Adhesive | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| Poly(Vinyl Chloride) Tape with Rubber-Based Adhesive | Ingestion | | LD50 estimated to be > 5,000 mg/kg |
| Antimony trioxide | Dermal | Rabbit | LD50 > 6,685 mg/kg |
| Antimony trioxide | Inhalation- Dust/Mist (4 hours) | Rat | LC50 > 2.76 mg/l |
| Antimony trioxide | Ingestion | Rat | LD50 > 34,600 mg/kg |
| Natural rubber | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| Natural rubber | Ingestion | | LD50 estimated to be > 5,000 mg/kg |
| Zinc oxide | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| Zinc oxide | Inhalation- Dust/Mist (4 hours) | Rat | LC50 > 5.7 mg/l |
| Zinc oxide | Ingestion | Rat | LD50 > 5,000 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| Name | Species | Value |
|--|-----------------------------------|---------------------------|
| Poly(Vinyl Chloride) Tape with Rubber-Based Adhesive | Professio nal judgemen t | No significant irritation |
| Antimony trioxide | Human and animal | Minimal irritation |
| Natural rubber | Human | Mild irritant |
| Zinc oxide | Human and animal | No significant irritation |

Serious Eye Damage/Irritation

| Name | Species | Value |
|-------------------|---------|---------------------------|
| Antimony trioxide | Rabbit | Mild irritant |
| Natural rubber | Rabbit | No significant irritation |
| Zinc oxide | Rabbit | Mild irritant |

Sensitization:

Skin Sensitisation

| Skii Sciistisation | | |
|--------------------|---------|----------------|
| Name | Species | Value |
| Antimony trioxide | Human | Not classified |
| Natural rubber | Human | Sensitising |

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Scotch® Super 33+TM Vinyl Electrical Tape and Scotch® Premium Vinyl Electrical Tape Super 88

| Zinc oxide | Guinea | Not classified |
|------------|--------|----------------|
| | pig | |

Respiratory Sensitisation

| Name | Species | Value |
|----------------|---------|-------------|
| Natural rubber | Human | Sensitising |

Germ Cell Mutagenicity

| Name | Route | Value |
|--|----------|--|
| | | |
| Poly(Vinyl Chloride) Tape with Rubber-Based Adhesive | In Vitro | Not mutagenic |
| Antimony trioxide | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Antimony trioxide | In vivo | Some positive data exist, but the data are not sufficient for classification |
| Natural rubber | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Zinc oxide | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Zinc oxide | In vivo | Some positive data exist, but the data are not sufficient for classification |

Carcinogenicity

| Name | Route | Species | Value |
|--|------------|----------|--|
| Poly(Vinyl Chloride) Tape with Rubber-Based Adhesive | Not | Rat | Some positive data exist, but the data are not |
| | specified. | | sufficient for classification |
| Antimony trioxide | Inhalation | Multiple | Carcinogenic. |
| | | animal | |
| | | species | |

Reproductive Toxicity

Reproductive and/or Developmental Effects

| Name | Route | Value | Species | Test result | Exposure Duration |
|--|----------------|--|-------------------------------|------------------------|------------------------------|
| Poly(Vinyl Chloride) Tape with Rubber- Based Adhesive | Not specified. | Not classified for development | Mouse | NOAEL Not available | during gestation |
| Antimony trioxide | Inhalation | Not classified for female reproduction | Rat | LOAEL 0.25 mg/l | premating & during gestation |
| Zinc oxide | Ingestion | Not classified for reproduction and/or development | Multiple animal species | NOAEL 125 mg/kg/day | premating & during gestation |

Target Organ(s)

Specific Target Organ Toxicity - single exposure

| Specific Target Organ Toxicity - single exposure | | | | | | | |
|--|------------|------------------------|--|---------|---------------------|----------------------|--|
| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration | |
| Antimony trioxide | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | | NOAEL Not available | | |

Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|--|------------|--------------------|--|-------------------------------|---------------------|-----------------------|
| Poly(Vinyl Chloride) Tape with Rubber-Based Adhesive | Inhalation | respiratory system | Not classified | Multiple animal species | NOAEL 0.013 mg/l | 22 months |
| Antimony trioxide | Dermal | skin | Causes damage to organs through prolonged or repeated exposure | Human | NOAEL Not available | occupational exposure |
| Antimony trioxide | Inhalation | pulmonary fibrosis | May cause damage to organs | Rat | NOAEL | 1 years |

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| | | | though prolonged or repeated exposure | | 0.002 mg/l | |
|-------------------|------------|--|---------------------------------------|-------|------------------------|-----------------------|
| Antimony trioxide | Inhalation | liver | Not classified | Rat | NOAEL 0.043 mg/l | 1 years |
| Antimony trioxide | Inhalation | blood | Not classified | Rat | NOAEL 0.004 mg/l | not available |
| Antimony trioxide | Inhalation | pneumoconiosis | Not classified | Human | LOAEL 0.01 mg/l | occupational exposure |
| Antimony trioxide | Inhalation | heart | Not classified | Rat | NOAEL 0.02 mg/l | 1 years |
| Antimony trioxide | Ingestion | blood liver | Not classified | Rat | NOAEL 418 mg/kg/day | not available |
| Antimony trioxide | Ingestion | heart | Not classified | Rat | NOAEL Not available | not available |
| Zinc oxide | Ingestion | nervous system | Not classified | Rat | NOAEL 600 mg/kg/day | 10 days |
| Zinc oxide | Ingestion | endocrine system hematopoietic system kidney and/or bladder | Not classified | Other | NOAEL 500 mg/kg/day | 6 months |

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

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity

Acute aquatic hazard:

Not acutely toxic to aquatic life by GHS criteria.

Chronic aquatic hazard:

Not chronically toxic to aquatic life by GHS criteria.

No product test data available.

| Material | CAS Nbr | Organism | Type | Exposure | Test endpoint | Test result |
|---|-----------|------------------|---|----------|---------------|-------------|
| Poly(Vinyl Chloride) Tape with Rubber-Based Adhesive | Mixture | N/A | Data not available or insufficient for classification | N/A | N/A | N/A |
| Antimony trioxide | 1309-64-4 | Green algae | Endpoint not reached | 72 hours | EC50 | >100 mg/l |
| Antimony trioxide | 1309-64-4 | N/A | Estimated | 96 hours | EC50 | 2.12 mg/l |
| Antimony trioxide | 1309-64-4 | Fathead minnow | Estimated | 96 hours | LC50 | 17.2 mg/l |
| Antimony trioxide | 1309-64-4 | Fish | Estimated | 96 hours | LC50 | 8.3 mg/l |
| Antimony trioxide | 1309-64-4 | Activated sludge | Experimental | 4 hours | NOEC | 6.1 mg/l |
| Antimony trioxide | 1309-64-4 | Rainbow trout | Estimated | 28 days | LC10 | 0.188 mg/l |
| Antimony trioxide | 1309-64-4 | Water flea | Estimated | 21 days | NOEC | 2.08 mg/l |
| Antimony trioxide | 1309-64-4 | Green algae | Experimental | 72 | NOEC | 2.53 mg/l |
| Natural rubber | 9006-04-6 | N/A | Data not available or insufficient for | N/A | N/A | N/A |

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| | | | classification | | | |
|------------|-----------|------------------|----------------|----------|------|------------|
| Zinc oxide | 1314-13-2 | Activated sludge | Estimated | 3 hours | EC50 | 6.5 mg/l |
| Zinc oxide | 1314-13-2 | Green algae | Estimated | 72 hours | EC50 | 0.052 mg/l |
| Zinc oxide | 1314-13-2 | Rainbow trout | Estimated | 96 hours | LC50 | 0.21 mg/l |
| Zinc oxide | 1314-13-2 | Water flea | Estimated | 48 hours | EC50 | 0.07 mg/l |
| Zinc oxide | 1314-13-2 | Green algae | Estimated | 72 hours | NOEC | 0.006 mg/l |
| Zinc oxide | 1314-13-2 | Water flea | Estimated | 7 days | NOEC | 0.02 mg/l |

12.2. Persistence and degradability

| Material | CAS Nbr | Test type | Duration | Study Type | Test result | Protocol |
|---|-----------|--|----------|------------|-------------|----------|
| | | | | | | |
| Poly(Vinyl Chloride) Tape with Rubber-Based Adhesive | Mixture | Data not available- insufficient | N/A | N/A | N/A | N/A |
| Antimony trioxide | 1309-64-4 | Data not available- insufficient | N/A | N/A | N/A | N/A |
| Natural rubber | 9006-04-6 | Data not available- insufficient | N/A | N/A | N/A | N/A |
| Zinc oxide | 1314-13-2 | Data not available-insufficient | N/A | N/A | N/A | N/A |

12.3 : Bioaccumulative potential

| Material | CAS Nbr | Test type | Duration | Study Type | Test result | Protocol |
|---|-----------|---|----------|------------------------|-------------|--------------------------|
| Poly(Vinyl Chloride) Tape with Rubber-Based Adhesive | Mixture | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Antimony trioxide | 1309-64-4 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Natural rubber | 9006-04-6 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Zinc oxide | 1314-13-2 | Experimental BCF - Fish | 56 days | Bioaccumulation factor | ≤217 | OECD305-Bioconcentration |

12.4. Mobility in soil

Please contact manufacturer for more details

12.5 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Disposal methods

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

Prior to disposal, consult all applicable authorities and regulations to insure proper classification. Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Combustion products will include halogen acid (HCl/HF/HBr). Facility must be capable of handling halogenated materials.

SECTION 14: Transport Information

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International Regulations

UN No.: None assigned

UN Proper shipping name: None assigned

Transportation Class (IMO): None assigned Transportation Class (IATA): None assigned

Other Dangerous Goods Descriptions (IMO): None assigned Other Dangerous Goods Descriptions (IATA): None assigned

Packing Group: None assigned Marine pollutant: None assigned

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Global inventory status

Contact 3M for more information.

SECTION 16: Other information

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

3M Singapore SDSs are available at www.3m.com.sg

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