Safety Data Sheet

Copyright,2026, 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:	45-1528-4	**Version Number:**	2.00
Issue Date:	02/25/26	**Supersedes Date:**	09/18/25

SECTION 1: Identification

1.1. Product identifier
3M™ Electrically Conductive Single-Sided Tape 3304BC-S

Product Identification Numbers
80-0016-0506-4, 80-0016-0507-2, 80-0016-0508-0, WX-3009-5357-6
7010593153, 7100230497, 7100313412, 7100313593, 7100313594

1.2. Recommended use and restrictions on use

Recommended use
Tape

1.3. Supplier's details

MANUFACTURER:	3M
DIVISION:	3M Korea Electronics Materials Solutions 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
Skin Sensitizer: Category 1.
Reproductive Toxicity: Category 2.

2.2. Label elements
Signal word
Warning

Symbols
Exclamation mark |Health Hazard |

Pictograms



Hazard Statements

May cause an allergic skin reaction.
Suspected of damaging fertility or the unborn child.

Precautionary statements

Prevention:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Avoid breathing vapors.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves.

Response:
IF ON SKIN: Wash with plenty of soap and water.
IF exposed or concerned: Get medical attention.
If skin irritation or rash occurs: Get medical attention.
Take off contaminated clothing and wash it before reuse.

Disposal:
Dispose of contents and container in accordance with applicable local, regional, national, and international regulations.

11% of the mixture consists of ingredients of unknown acute oral toxicity.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
COPPER	7440-50-8	25 - 50
POLY(ETHYLENE TEREPHTHALATE)	25038-59-9	20 - 45
Acrylic Polymer	Trade Secret*	7 - 13
Nickel	7440-02-0	3 - 7 Trade Secret *
Carbon Black	1333-86-4	0.5 - 1.5 Trade Secret *
Silver	7440-22-4	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:
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:
Rinse mouth. If you feel unwell, get medical attention.

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

Allergic skin reaction (redness, swelling, blistering, and itching).

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 Gas	During Combustion
Irritant Vapors or Gases	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
Use personal protective equipment based on the results of an exposure assessment. Refer to Section 8 for PPE recommendations. If anticipated exposure resulting from an accidental release exceeds the protective capabilities of the PPE listed in Section 8, or are unknown, select PPE that offers an appropriate level of protection. Consider the physical and chemical hazards of the material when doing so. Examples of PPE ensembles for emergency response could include wearing bunker gear for a release of flammable material; wearing chemical protective clothing if the spilled material is a corrosive, a sensitizer, a significant dermal irritant, or can be absorbed through the skin; or donning a positive pressure supplied-air respirator for chemicals with inhalation hazards. For information regarding physical and health hazards, refer to sections 2 and 11 of the SDS.

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
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

Avoid breathing of dust created by cutting, sanding, grinding or machining. 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. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Use personal protective equipment (gloves, respirators, etc.) as required.

7.2. Conditions for safe storage including any incompatibilities
Store away from heat. Store away from acids.

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 mg/m3	A3: Confirmed animal carcin.
Carbon Black	1333-86-4	OSHA	TWA:3.5 mg/m3	
Nickel	7440-02-0	ACGIH	TWA(inhalable fraction):1.5 mg/m3	A5: Not suspected human carcin
Nickel	7440-02-0	OSHA	TWA(as Ni):1 mg/m3	
Silver	7440-22-4	ACGIH	TWA(as dust and fume):0.1 mg/m3	
Silver	7440-22-4	OSHA	TWA(as Ag):0.01 mg/m3	
COPPER	7440-50-8	OSHA	TWA(as Cu, fume):0.1 mg/m3;TWA(as Cu dust or mist):1 mg/m3	
Copper, dusts and mists, as Cu	7440-50-8	ACGIH	TWA(as Cu, fume):0.2 mg/m3;TWA(as Cu dust or mist):1 mg/m3	

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
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: Nitrile Rubber

Respiratory protection
None 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	Odorless
Odor threshold	*Not Applicable*
pH	*Not Applicable*
Melting point/Freezing point	*Not Applicable*
Boiling point/Initial boiling point/Boiling range	*Not Applicable*
Flash Point	*Not Applicable*
Evaporation rate	*Not Applicable*
Flammability	Not Applicable
Flammable Limits(LEL)	*Not Applicable*
Flammable Limits(UEL)	*Not Applicable*
Vapor Pressure	*Not Applicable*
Relative Vapor Density	*Not Applicable*
Density	1.8 - 2.2 g/ml [@ 23 ºC]
Relative Density	1.8 - 2.2 [@ 23 ºC]
Water solubility	*Not Applicable*
Solubility- non-water	*Not Applicable*
Partition coefficient: n-octanol/ water	*Not Applicable*
Autoignition temperature	*Not Applicable*
Decomposition temperature	*Not Applicable*
Kinematic Viscosity	*Not Applicable*
Volatile Organic Compounds	*No Data Available*
Percent volatile	*No Data Available*
VOC Less H2O & Exempt Solvents	*No Data Available*
Molecular weight	*No Data Available*

Particle Characteristics	*Not Applicable*

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 acids

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:
No health effects are expected.

Skin Contact:
Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye Contact:
No health effects are expected.

Ingestion:
Physical Blockage: Signs/symptoms may include cramping, abdominal pain, and constipation.

May cause additional health effects (see below).

Additional Health Effects:

Reproductive/Developmental Toxicity:
Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Carcinogenicity:

Ingredient	CAS No.	Class Description	Regulation
Carbon black	1333-86-4	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Nickel (Metallic)	7440-02-0	Anticipated human carcinogen	National Toxicology Program Carcinogens
Nickel, metallic and alloys	7440-02-0	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.

Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
COPPER	Dermal	Rat	LD50 > 2,000 mg/kg
COPPER	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5.11 mg/l
COPPER	Ingestion	Rat	LD50 > 2,000 mg/kg
POLY(ETHYLENE TEREPHTHALATE)	Dermal		LD50 estimated to be > 5,000 mg/kg
POLY(ETHYLENE TEREPHTHALATE)	Ingestion	Rat	LD50 > 5,000 mg/kg
Nickel	Dermal		LD50 estimated to be > 5,000 mg/kg
Nickel	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 2.55 mg/l
Nickel	Ingestion	Rat	LD50 > 9,000 mg/kg
Carbon Black	Dermal	Rabbit	LD50 > 3,000 mg/kg
Carbon Black	Ingestion	Rat	LD50 > 8,000 mg/kg
Silver	Dermal	Rat	LD50 > 2,000 mg/kg
Silver	Inhalation-Dust/Mist (4 hours)	Rat	LD50 > 5.16 mg/l
Silver	Ingestion	Rat	LD50 > 2,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
COPPER	Rabbit	No significant irritation
POLY(ETHYLENE TEREPHTHALATE)	In vitro data	No significant irritation
Nickel	Rabbit	Minimal irritation
Carbon Black	Rabbit	No significant irritation
Silver	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
COPPER	Rabbit	Mild irritant
POLY(ETHYLENE TEREPHTHALATE)	Human	No significant irritation
Nickel	Rabbit	Mild irritant
Carbon Black	Rabbit	No significant irritation
Silver	Rabbit	No significant irritation

Skin Sensitization

Name	Species	Value
POLY(ETHYLENE TEREPHTHALATE)	Human	Not classified
Nickel	Human	Sensitizing
Silver	similar compounds	Not classified

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
POLY(ETHYLENE TEREPHTHALATE)	In Vitro	Not mutagenic
Carbon Black	In Vitro	Not mutagenic
Carbon Black	In vivo	Some positive data exist, but the data are not

		sufficient for classification
Silver	In Vitro	Some positive data exist, but the data are not sufficient for classification
Silver	In vivo	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Nickel	Inhalation	similar compounds	Carcinogenic
Carbon Black	Dermal	Mouse	Not carcinogenic
Carbon Black	Ingestion	Mouse	Not carcinogenic
Carbon Black	Inhalation	Rat	Carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Silver	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	during gestation
Silver	Ingestion	Not classified for female reproduction	Professional judgement	NOAEL Not available	
Silver	Ingestion	Toxic to male reproduction	Rat	NOAEL Not available	

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
POLY(ETHYLENE TEREPHTHALATE)	Ingestion	heart	Not classified	Rat	NOAEL Not available	13 weeks
POLY(ETHYLENE TEREPHTHALATE)	Ingestion	skin	Not classified	Rat	NOAEL Not available	13 weeks
POLY(ETHYLENE TEREPHTHALATE)	Ingestion	endocrine system	Not classified	Rat	NOAEL Not available	13 weeks
POLY(ETHYLENE TEREPHTHALATE)	Ingestion	bone, teeth, nails, and/or hair	Not classified	Rat	NOAEL Not available	13 weeks
POLY(ETHYLENE TEREPHTHALATE)	Ingestion	hematopoietic system	Not classified	Rat	NOAEL Not available	13 weeks
POLY(ETHYLENE TEREPHTHALATE)	Ingestion	liver	Not classified	Rat	NOAEL Not available	13 weeks
POLY(ETHYLENE TEREPHTHALATE)	Ingestion	immune system	Not classified	Rat	NOAEL Not available	13 weeks
POLY(ETHYLENE TEREPHTHALATE)	Ingestion	muscles	Not classified	Rat	NOAEL Not available	13 weeks
POLY(ETHYLENE TEREPHTHALATE)	Ingestion	nervous system	Not classified	Rat	NOAEL Not available	13 weeks
POLY(ETHYLENE TEREPHTHALATE)	Ingestion	eyes	Not classified	Rat	NOAEL Not available	13 weeks
POLY(ETHYLENE TEREPHTHALATE)	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL Not available	13 weeks
POLY(ETHYLENE TEREPHTHALATE)	Ingestion	respiratory system	Not classified	Rat	NOAEL Not available	13 weeks
Nickel	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.001 mg/l	13 weeks

Carbon Black	Inhalation	pneumoconiosis	Not classified	Human	NOAEL Not available	occupational exposure
Silver	Inhalation	hematopoietic system	Not classified	Rat	NOAEL 0.000515 mg/l	13 weeks
Silver	Inhalation	liver	Not classified	Rat	NOAEL 0.000515 mg/l	13 weeks
Silver	Inhalation	nervous system	Not classified	Rat	NOAEL 0.000515 mg/l	13 weeks
Silver	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 0.000515 mg/l	13 weeks
Silver	Inhalation	respiratory system	Not classified	Rat	NOAEL 0.000133 mg/l	13 weeks
Silver	Inhalation	heart	Not classified	Rat	NOAEL 0.000515 mg/l	13 weeks
Silver	Inhalation	endocrine system	Not classified	Rat	NOAEL 0.000515 mg/l	13 weeks
Silver	Inhalation	immune system	Not classified	Rat	NOAEL 0.000515 mg/l	13 weeks
Silver	Inhalation	eyes	Not classified	Rat	NOAEL 0.000515 mg/l	13 weeks
Silver	Ingestion	nervous system	May cause damage to organs though prolonged or repeated exposure	Professional judgement	NOAEL Not available	
Silver	Ingestion	liver	Not classified	Rat	NOAEL 500 mg/kg/day	13 weeks
Silver	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 500 mg/kg/day	13 weeks
Silver	Ingestion	gastrointestinal tract	Not classified	Rat	NOAEL 500 mg/kg/day	13 weeks
Silver	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 500 mg/kg/day	13 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.

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility.

EPA Hazardous Waste Number (RCRA): D011 (Silver)

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
Reproductive toxicity
Respiratory or Skin Sensitization

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

Ingredient	C.A.S. No	% by Wt
Nickel	7440-02-0	Trade Secret 3 - 7
COPPER	7440-50-8	25 - 50

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

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

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.

Document Group:	45-1528-4	**Version Number:**	2.00
Issue Date:	02/25/26	**Supersedes Date:**	09/18/25

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. 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