

CHO-FAB® Shielding Tapes

Product code(s): CFT-36-101-XXXX

SDS Preparation Date (dd/mm/yyyy): 20/06/2012

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SAFETY DATA SHEET

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

SECTION 1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAK

Product identifier : **CHO-FAB® Shielding Tapes**

Product Code(s) : CFT-36-101-XXXX

Product Matrix

Part number prefix	CFT
Foil/Fabric Type	Nickel-Plated Fabric
Adhesive Thickness, mils (mm)	Adhesive one side: 1.5 (0.0381)

SDS No. : PHC-208 EU

Relevant identified uses of the substance or mixture and uses advised against

- : Corrosion resistant, nickel-plated fabric tape coated with conductive, pressure-sensitive acrylic adhesive. For use in a wide variety of EMI shielding and grounding applications. Use pattern: professional use.

Details of the supplier of the safety data sheet:

Parker Hannifin France

SAS-Etablissement de Saint Ouen l'Aumône-PA du vert
Galant-6/8 avenue du Vert
Galant-95310 Saint Ouen l'Aumône-France

Telephone (France) : +33 (01) 34 32 39 00

Details of the manufacturer of the product:

Parker Hannifin Corporation

77 Dragon Court
Woburn, Massachusetts, U.S.A.
01888

Telephone (U.S.A.): 001-781-935-4850

Website: www.parker.com

Direct all enquiries to Parker Hannifin Corporation (U.S.A.).

Emergency Telephone Number

: 001-352-323-3500 (INFOTRAC - U.S.)

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Solid article, no odour.

Most important hazards: This preparation is not classified as dangerous according to Directive 1999/45/EC. As supplied, this product does not present a physical, health or environmental hazard.

Label elements

This preparation is not classified as dangerous according to Directive 1999/45/EC. According to present data no classification and labelling is required according to Directives 67/548/EEC or 1999/45/EC.

Safety data sheet available for professional user on request.

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Other hazards

Other hazards which do not result in classification: Inhalation of fumes may result in metal fume fever, a flu-like illness. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Silver in the form of a finely divided dust may cause discoloration in contact with skin, and argyrosis in case of inhalation.

Environmental precautions: Avoid release to the environment.

PBT assessment: This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Not applicable

Mixtures

Chemical nature of the preparation: This article is a single-sided, nickel-plated fabric tape. It consists of a conductive, pressure-sensitive acrylic adhesive layer on one side and a release liner covering the adhesive layer.

The following substances shall be indicated according to legislation:

Chemical name	CAS #	EC No.	Concentration	EU Classification
Copper	7440-50-8	231-159-6	< 15%	None assigned. Substances for which there are Community workplace exposure limits.
silver	7440-22-4	231-131-3	< 3.0%	None assigned. Substances for which there are Community workplace exposure limits.

For the full text of the R phrases mentioned in this section, see Section 2 or 16.

SECTION 4. FIRST-AID MEASURES

Description of first aid measures

- Ingestion* : Do NOT induce vomiting. Never give anything by mouth to an unconscious person. When symptoms persist or in all cases of doubt seek medical advice.
- Inhalation* : If breathed in, move person into fresh air. If breathing is irregular or stopped, administer artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. When symptoms persist or in all cases of doubt seek medical advice.
- Skin contact* : Remove/Take off immediately all contaminated clothing. Wash off immediately with soap and plenty of water. Wash contaminated clothing before reuse. When symptoms persist or in all cases of doubt seek medical advice.
- Eye contact* : Immediately flush eyes with running water for at least 5 to 10 minutes. When symptoms persist or in all cases of doubt seek medical advice.

Most important symptoms and effects, both acute and delayed

- : Inhalation of fumes may result in metal fume fever, a flu-like illness.
- : Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
- : Silver in the form of a finely divided dust may cause discoloration in contact with skin, and argyrosis in case of inhalation.

Indication of any immediate medical attention and special treatment needed

- : Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

- : Dry chemical; Carbon dioxide (CO2); Foam; Water spray

Unsuitable extinguishing media

- : Do not use a solid water stream as it may scatter and spread fire.

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Special hazards arising from the substance or mixture

- : The pressure in sealed containers can increase under the influence of heat. Burning produces obnoxious and toxic fumes. In the event of fire the following can be released: Metal oxides; Carbon oxides; Other unidentified organic compounds

Advice for firefighters

Protective equipment for fire-fighters

- : Wear self-contained breathing apparatus and protective suit. Fight fire with normal precautions from a reasonable distance.

Special fire-fighting procedures

- : Move containers from fire area if safe to do so. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Dike for water control.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- : Wear suitable protective equipment. Keep people away from and upwind of spill/leak.

Environmental precautions

- : Do not allow material to contaminate ground water system. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply.

Methods and material for containment and cleaning up

- : Ventilate the area. Prevent further leakage or spillage if safe to do so. Remove all sources of ignition. Sweep up and shovel into suitable containers for disposal. Keep in properly labelled containers. Contact the proper local authorities.

Reference to other sections

- : Refer to protective measures listed in sections 7 and 8. Refer to Section 13 for disposal of contaminated material.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

- : Provide adequate ventilation. Use personal protective equipment as required. Avoid breathing fumes. Avoid contact with skin and eyes. Keep away from extreme heat and flame. Keep away from incompatibles. Keep containers closed when not in use. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

- : Store in cool/well-ventilated place. Store away from incompatible materials. Inspect periodically for damage or leaks. Protect against physical damage.

Specific end use(s)

- : Thermally conductive, single-sided tape.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters

Exposure Limits:

Chemical Name	Exposure Limits	Type	Notes
Copper	0.2 mg/m ³ (fumes); 1 mg/m ³ (dust) (TWA)	France (OEL)	None.
	2 mg/m ³ (dust) (STEL)		
	1 mg/m ³ ; 0.1 mg/m ³ (fumes) (TWA)	Hungary (OEL)	None.
	4 mg/m ³ ; 0.4 mg/m ³ (fumes) (STEL)		

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	0.2 mg/m ³ (fumes); 1 mg/m ³ (dust) (TWA)	Spain (OEL)	None.
	0.2 mg/m ³ (fumes); 1 mg/m ³ (dust) (TWA)	The United Kingdom (The United Kingdom (WELs))	None.
	0.6 mg/m ³ (fumes); 2 mg/m ³ (dust) (STEL)		
silver	0.1 mg/m ³ (TWA)	European Union (OEL)	None.
	0.1 mg/m ³ (TWA)	France (OEL)	None.
	0.1 mg/m ³ (inhalable) (TWA)	Germany (OEL)	(exposure factor 8)
	0.05 mg/m ³ (TWA)	Poland (OEL)	None.
	0.1 mg/m ³ (TWA)	Spain (OEL)	None.
	0.1 mg/m ³ (TWA)	The United Kingdom (The United Kingdom (WELs))	None.

Exposure controls

Ventilation and engineering measures

- : Provide adequate ventilation. If product is processed in a manner that generates dusts or fumes, provide mechanical ventilation to control airborne exposure levels. Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. In case of insufficient ventilation wear suitable respiratory equipment.

Respiratory protection

- : not required under normal use.
In the case of vapour formation use a respirator with an approved filter. The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

Skin protection

- : not required under normal use.
For prolonged or repeated contact use protective gloves. The suitability for a specific workplace should be discussed with the producers of the protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.

Eye / face protection

- : not required under normal use.
If product is processed in a manner that generates dusts or fumes, wear as appropriate: Safety glasses with side-shields; Goggles. See also EN 166.

Other protective equipment

- : Ensure that eyewash stations and safety showers are close to the workstation location. Other equipment may be required depending on workplace standards.

General hygiene considerations

- : Avoid breathing fumes. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance

- : Solid article. This article is a single-sided, nickel-plated fabric tape. It consists of a conductive, pressure-sensitive acrylic adhesive layer on one side and a release liner covering the adhesive layer.

Odour

- : No odour.

Odour threshold

- : No information available.

pH

- : No information available.

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Flash point : Not applicable.
Flashpoint (Method) : Not applicable.
Lower flammable limit (% by vol.) : Not applicable.
Upper flammable limit (% by vol.) : Not applicable.
Flammability (solid, gas) : Not applicable.
Auto-ignition temperature : No information available.
Decomposition temperature : No information available.
Oxidizing properties : None known.
Explosive properties : Not expected to be sensitive to mechanical impact or static discharge.

Initial boiling point and boiling range

: No information available.
Melting/Freezing point : No information available.
Relative density : Not applicable.
Solubility in water : insoluble
Other solubility(ies) : No information available.
Vapour pressure : No information available.
Vapour density : No information available.

Partition coefficient: n-octanol/water

: No information available.
Viscosity : No information available.
Evaporation rate (BuAe = 1) : No information available.

Other Information

Volatiles (% by weight) : negligible
Volatile organic Compounds (VOC's) : None.

Other physical/chemical comments

: No additional information.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not normally reactive.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : Hazardous polymerisation does not occur.
Conditions to avoid : Do not use in areas without adequate ventilation. Keep away from extreme heat and flame.
Avoid contact with incompatible materials.
Incompatible materials : Acids; Oxidizing agents.
Hazardous decomposition products : Burning produces obnoxious and toxic fumes. In the event of fire the following can be released: Carbon oxides; metal oxides; Other unidentified organic compounds.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on Toxicological effects:

Acute toxicity : According to the classification criteria of the European Union, this product is not considered as being an acutely toxic chemical.
Irritation : According to the classification criteria of the European Union, this product is not considered as being an irritant.

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- Corrosivity** : According to the classification criteria of the European Union, this product is not considered as being a corrosive material.
- Sensitisation** : According to the classification criteria of the European Union, this product is not considered as being an allergic respiratory sensitiser.
According to the classification criteria of the European Union, this product is not considered as being an allergic skin sensitiser.
- Mutagenicity** : Contains no ingredient listed as a mutagen.
- Carcinogenicity** : Contains no ingredient listed as a carcinogen.
- Reproductive toxicity** : Contains no ingredient listed as toxic to reproduction.
- Repeated dose toxicity** : According to the classification criteria of the European Union, this product is not expected to cause target organ toxicity through repeated doses.
- Toxicological data** : There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.

<u>Chemical name</u>	<u>LC₅₀(4hr)</u> <u>inh, rat</u>	<u>LD₅₀</u>	
		<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
Copper	No information available.	> 2500 mg/kg	> 2000 mg/kg
silver	No information available.	> 2000 mg/kg	No information available.

- Routes of exposure** : Eye contact; Skin contact; Inhalation; Ingestion.
- Effects of acute exposure** : Inhalation: May cause mild respiratory irritation at higher temperatures. Inhalation of fumes may result in metal fume fever, a flu-like illness. Symptoms of metal fume fever may include fever, fatigue, vomiting, muscle aches and shortness of breath.
- Skin contact: Direct skin contact may result in little or no irritation.
- Eye contact: Causes little or no irritation.
- Ingestion: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
- Potential Chronic Health Effects** : Silver in the form of a finely divided dust may cause discoloration in contact with skin, and argyrosis in case of inhalation.
- Other important hazards** : None known or reported by the manufacturer.

SECTION 12. ECOLOGICAL INFORMATION

- Ecotoxicity** : As supplied, this product does not present a physical, health or environmental hazard.
- No data is available on the product itself. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.
- Persistence and degradability** : Not expected to be rapidly biodegradable.
- Bioaccumulation potential** : The product itself has not been tested.
- Mobility in soil** : The product itself has not been tested.
- Results of PBT and vPvB assessment** : This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).
- Other Adverse Environmental effects** : None known.

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Water contaminating class (Germany)

: No information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods:




Handling for Disposal

: Handle in accordance with good industrial hygiene and safety practice. Refer to protective measures listed in sections 7 and 8.

Methods of Disposal

: Dispose of in accordance with the European Directives on waste and hazardous waste. Waste must be classified and labelled prior to recycling or disposal. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14. TRANSPORTATION INFORMATION

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
ADR/RID	None	not regulated	Not regulated	None	
EU ADR/RID Classification Code	Not applicable.				
EU ADR / RID Hazard Identification Number	Not applicable.				
ADR/RID Additional information	Not classified as dangerous for conveyance in the meaning of the regulations for the transport of dangerous goods by road and rail.				
ICAO/IATA	None	Not regulated.	Not regulated	None	
ICAO/IATA Additional information	None.				
IMDG	None	Not regulated.	Not regulated	None	
IMDG Additional information	None.				

Special precautions for user

: Appropriate advice on safety must accompany the package. Avoid release to the environment.

Environmental hazards

: This product does not meet the criteria for an environmentally hazardous mixture, according to the IMDG Code. See Section 12 for more environmental information.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

: Not applicable.

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SECTION 15. REGULATORY INFORMATION

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

- : 1. Substances presenting a health or environmental hazard within the meaning of Directive 67/548/EEC.
- 2. Classification according to European directive on classification of hazardous preparations 1999/45/EC.
- 3. This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.
- 4. In accordance with the legislation of the United Kingdom.
- 5. German legislation on water endangering substances VwVwS (see Section 12).

Chemical safety assessment : A chemical safety assessment has not been carried out by the Manufacturer of this product.

SECTION 16. OTHER INFORMATION

Legend

- : ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- CAS: Chemical Abstract Services
- EC: European Community
- EEC: European Economic Community
- EHC: Environmental Health Criteria
- EINECS: European Inventory of Existing Commercial chemical Substances
- EN: European Standard
- EU: European Union
- HSDB: Hazardous Substances Data Bank
- IATA: International Air Transport Association
- IBC: Intermediate Bulk Container
- ICAO: International Civil Aviation Organisation
- IMDG: International Maritime Dangerous Goods
- LC: Lethal Concentration
- LD: Lethal Dose
- OEL: National occupational exposure limits
- RID: Regulations concerning the International Carriage of Dangerous Goods by Rail
- RTECS: Registry of Toxic Effects of Chemical Substances
- SDS: Safety Data Sheet
- STEL: Short Term Exposure Limit
- TWA: Time Weighted Average
- WEL: Workplace Exposure Limit
- WHO: World Health Organization

Information Source

- : 1. Material Safety Data Sheet from manufacturer.
- 2. Canadian Centre for Occupational Health and Safety, CCInfoWeb Databases, 2012 (Chempendium, RTECs, HSDB, INCHEM).
- 3. European Chemicals Bureau, Existing Chemicals Work Area, EINECS Information System, 2012.
- 4. European Chemicals Agency, Classification Legislation, 2012.
- 5. OECD - The Global Portal to Information on Chemical Substances - eChemPortal, 2012.

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R-Phrases (Full text) : Not applicable.

Other special considerations for handling

- : Provide adequate information, instruction and training for operators.

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