

# MSDS Electrodeposited copper foil TRZA-HTE

SAFETY DATA SHEET

version 1  
13.09.2021

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/ UNDERTAKING			
Identification of the substance	Electrodeposited copper foil TRZA-HTE		
Article number			
Registration number (REACH)	This information is not available		
EC number	missing		
CAS number	missing		
Relevant identified uses of the substance or mixture and uses advised against			
Installed applications:	Production of copper clad laminates and multilayer printed circuit boards		
Details of the supplier of the safety data sheet			
Joint stock company «Kyshtym Copper Electrolytic Plant» Mailing address: 2, Parizhskoy Commune str., Kyshtym town, Chelyabinsk region, 456870, Russia Legal address: 2, Parizhskoy Commune str., Kyshtym town, Chelyabinsk region, 456870, Russia			
Phone:	+7(35151) 4-74-81, 9-54-96, 9-54-15		
Fax:	+7(35151) 4-74-63, 9-51-76		
Email:	office@kmez.rcc-group.ru		
Web site:	www.russianfoil.com		
Emergency numbers	+7(35151) 4-74-81, 9-54-96, 9-54-15		
Emergency Information Service	+7(35151) 4-74-81, 9-54-96, 9-54-15		
2. HAZARDS IDENTIFICATION			
2.1 Classification of the substance or mixture			
Classification in accordance with Regulation (EC) № 1272/2008 (CLP)			
Classification in accordance with CLP			
Section	Hazard Class	Class and category of hazard	Brief description of the hazard
3.2	Skin corrosion / irritation	Skin Irrit. 3	H316
3.3	Grave eye damage / irritation	Eye irritant cat 2	H320
Remarks			
Full text of Hazard - Hazard and EU statements: see section 16.			

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## 2.2 Label elements

Labeling in accordance with Regulation (EC) № 1272/2008 (CLP)

**Signal word**     Caution!

### Pictograms

missing

### Brief description of the hazard

H316                             In contact with the skin causes mild irritation

H320                             In contact with the eyes causes irritation

### Precautionary measures

#### Precautions - Prevention

P264 Wash hands thoroughly after handling.

P280 Wear gloves / overalls / eye protection / face protection

#### Precautions – reaction

P302+P352                     IN CONTACT WITH SKIN: Rinse with plenty of water

P305+P351+P338             IN CASE OF CONTACT WITH EYES: Gently rinse the eyes with water for a few minutes. Remove contact lenses if you use them and if it is easy to do. Continue rinsing the eyes

P332+P311                     If skin irritation occurs, seek medical help

P337+P311                     If eye irritation persists seek medical attention

P362+364                     Remove all contaminated clothing and wash it before reuse

## 2.3 Other hazards

No further information

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

<b>Copper</b>	<b>99,57-99,94 % (depending on the thickness of the foil)</b>
Number EC	231-159-6
Number CAS	7440-50-8
<b>Arsenic</b>	<b>0,03-0,01 %</b>
Number EC	231-148-6
Number CAS	7440-38-2

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<b>Chrome</b>	<b>0,01-0,001 %</b>
Number EC	231-157-5
Number CAS	7440-47-3
<b>Nickel</b>	<b>0,03-0,01 %</b>
Number EC	231-111-4
Number CAS	7440-02-0
<b>Zinc</b>	<b>0,35-0,03 %</b>
Number EC	231-175-3
Number CAS	7440-66-6

## 4. MEASURES FOR FIRST AID

### 4.1 Description of first aid measures



#### General remarks

No special measures required.

#### After inhalation

Fresh air, peace, warmth. If necessary, seek medical help.

#### Upon contact with skin

In case of cuts, seek medical help. Wash off the dust with running water and soap. If necessary, seek medical help.

#### Eye Contact

Rinse with running water. If necessary, seek medical help.

#### If swallowed,

Cases of acute poisoning are unlikely.

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

There is no relevant information available.

### 4.3 Indication of immediate medical attention and special treatment

There is no relevant information available.

## 5. MEASURES AND FIRE-FIGHTING

### 5.1 Extinguishing media

#### Suitable extinguishing means

Atomized water, chemical or air-mechanical foam, sand, all kinds of fire extinguishers

**Unsuitable extinguishing media**

missing.

**5.2 Special hazards arising from the substance or mixture**

Incombustible

**Hazardous combustion products**

missing

**5.3 Advice for firefighters**

In case of fire use an autonomous breathing apparatus and a chemical protection suit. Remove the product from the fire zone, if possible.

Cool the products with water from a safe distance.

Put on a self-contained respiratory protection device.

Ensure adequate ventilation.

**6. MEASURES FOR THE PREVENTION AND ELIMINATION OF ACCIDENTAL AND THEIR CONSEQUENCES****6.1 Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Provide proper ventilation. Keep away from sources of ignition.

**6.2 Environmental precautions**

Do not allow it to get under the ground / into the ground. Keep away from the sewage system, surface water and groundwater.

**6.3 Methods and materials for cleaning****Advice on how to prevent leakage**

Covering sewerage

**Tips on how to clean up the leak**

Remove mechanically.

**Other information relating to spills and releases**

Put into suitable containers for disposal.

**Reference to other sections**

Hazardous products of combustion: see section 5. Personal protective equipment: see section 8.

Incompatible materials: see section 10. Disposal recommendations: see section 13.

**7. RULES FOR THE STORAGE AND HANDLING OF CHEMICAL PRODUCTS DURING LOADING AND UNLOADING OPERATIONS****7.1 Precautions for safe handling**

No additional measures are required.

**7.2 Advice on protection against fires and explosions**

No additional measures are required.

**7.3 Conditions for safe storage, including incompatibilities**

Store in warehouses.

**7.4 Information on incompatible materials during storage**

Missing.

**7.5 Specific end use (s)**

Use only for its intended purpose; see the operating instructions.

**Additional Information**

Missing.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1 Control parameters**

**National limits**

**Restrictions for occupational exposure (Occupational Exposure Limits)**

no data

**8.2 Means of exposure control**

**PPE (personal protective equipment)**

**Eye / face protection**



Use safety glasses with side shields.

**Skin protection**



**• hand protection**

Use suitable protective gloves. The chemical protective gloves, which are tested in accordance with EN 374, are suitable. It is advisable to check the chemical resistance of the gloves for specific applications, as well as the supplier of the gloves.

**• material type**

NBR (Nitrile rubber)

**• material thickness**



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gas pressure	not applicable
Vapor density	not applicable
Bulk density	not applicable
Relative density	8,92 г/см <sup>3</sup>
<u>Solubility (u)</u>	
Solubility in water	insoluble
<u>distribution factor</u>	
n-octanol / water (log KOW)	not applicable
Ignition point	not applicable
Autoignition Temperature.	not applicable
Decomposition temperature	this information is not available
Viscosity	not applicable
Risk of explosion	not applicable
Oxidising properties	this information is not available
<b>9.2 Other information</b>	
No further information	
<b>10. STABILITY AND REACTIVITY</b>	
<b>10.1 Reactivity</b>	
This information is missing.	
<b>10.2 Chemical stability</b>	
Stable under normal conditions.	
<b>10.3 Thermal decomposition / conditions to avoid</b>	
No decomposition if used and stored according to specifications.	
<b>10.4 Situations to Avoid</b>	
This information is missing.	
<b>10.5 Incompatible materials</b>	
This information is missing.	
<b>10.6 Hazardous decomposition products</b>	
Not available in case of intended use and storage in accordance with the instructions.	
<b>11. TOXICOLOGICAL INFORMATION</b>	
<b>11.1 Information on toxicological effects</b>	
<b>Acute toxicity</b>	

Copper:

DL50 = 2100 mg/kg, n/a, rats;

CL50 = 5110 mg/m<sup>3</sup>, ing., rats, 4 h.

**Skin corrosion / irritation**

In contact with the skin causes mild irritation.

**Serious eye damage / irritation**

In case of contact with the eyes, it causes irritation.

**Respiratory or skin sensitization**

Not classified as a respiratory irritant or allergen skin.

**Summary CMR evaluation of properties**

It is not classified as a mutagen germ cells, or carcinogen toxin for reproduction

**• Specific target organ toxicity individual target organs****single exposure**

Not classified as a specific target organ toxicant (single exposure).

**Symptoms associated with physical, chemical and toxicological characteristics****• If swallowed,**

Not applicable. No probable route of exposure

**• Eye Contact**

Under conditions of dust and aerosol formation, it causes redness of the conjunctiva

**• After inhalation**

Under conditions of dust and aerosol formation, it causes sore throat, sneezing, cough, sweet taste in the mouth, headache, weakness, redness of the throat, shortness of breath, muscle pain, nausea, vomiting, diarrhea, bruising, chills, high fever

**• After contact with skin**

Possible cuts due to the sharp edges of the foil strip. In conditions of dust and aerosol formation, it causes redness of the skin

**Other information**

Other side effects: lethargy, decreased motor activity and reactions to external stimuli.

**12. ECOLOGICAL INFORMATION****12.1 Toxicity****• Toxicity to the aquatic environment**

according to 1272/2008 / EC: Not classified as hazardous to the aquatic environment.

**• The decomposition process**



No data.

- **Behavior in ecological systems**
- **Bioaccumulative potential**

No data.

- **Mobility in soil**

No data.

**12.2 Additional environmental information**

- **General information**

Do not allow to enter the environment.

**13. DISPOSAL CONSIDERATIONS**

**13.1 Waste treatment methods**

- **Recommendation**

The material and its container must be disposed of as hazardous waste. Dispose of contents / container in accordance with local / regional / national / international regulations.

**13.2 Uncleaned packaging**

- **Recommendation**

Dispose of the packaging in accordance with the rules for the disposal of containers.

**13.3 Notes**

missing.

**14. TRANSPORT INFORMATION**

<b>14.1</b> UN number	(Not subject to transport regulations)
<b>14.2</b> UN proper shipping name	it does not matter
<b>14.3</b> Class (es) during transport	it does not matter
class	it does not matter
<b>14.4</b> Packing group	it does not matter
<b>14.5</b> Environmental hazards	missing (not dangerous for the environment acc. to technical regulations)
<b>14.6</b> Special precautions for user	
No additional information.	

**14.7 Transportation of containers in accordance with Annex II of MARPOL 73/78 and IBC****Code**

Cargo for carriage in bulk.

**14.8 Information on each of the UN Model Regulations****• Transport of dangerous goods by road, rail and inland waterway (ADR / RID / ADN)**

Not subject to ADR, RID and ADN.

**• International Maritime Dangerous Goods (IMDG)**

It is not subject to the IMDG Code.

**• International Air Transport Association (ICAO-IATA / DGR)**

It is not subject to ICAO-IATA.

**15. REGULATORY INFORMATION****15.1 Safety, health and environmental laws / regulations specific for the substance or mixture****The relevant provisions of the European Union (EU)**

- **Regulation 649/2012 / EC on the export and import of hazardous chemicals (PIC)**

not listed

- **Regulation 1005/2009 / EC on substances that deplete the ozone layer (ODS)**

not listed

- **Regulation 850/2004 / EC on persistent organic pollutants (POPs)**

not listed

- **Restrictions under REACH, Annex XVII**

not listed

- **List of substances subject to authorization (REACH, Appendix XIV)**

not listed

- **Directive 2011/65 / EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II**

not listed

- **Regulation 166/2006 / EC establishing the European Pollutant Release and Transfer Registers (PRTR)**

not listed

- **Directive 2000/60 / EC establishing a framework for Community action in the field of water policy (WFD)**

not listed

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## 15.2 Chemical Safety Assessment

Not required.

## 16. OTHER INFORMATION

Abbr.	Descriptions of the abbreviations used
CAS	Chemical Abstracts Service (a service that supports the most comprehensive list of chemicals)
CLP	Regulation (EC) № 1272/2008 on the classification, labeling and packaging of substances and mixtures
CMR	Carcinogenic, mutagenic or toxic to the reproductive system
DGR	Carriage of Dangerous Goods Regulations (see IATA / DGR)
DMEL	The resulting minimal effect level
DNEL	The resulting minimal effect level
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European Inventory of identified chemicals
IATA	International Air Transport Association
IATA / DGR	Regulations transport of dangerous goods (DGR) for Air Transport (IATA)
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. Of "Marine Pollutant)
NLP	Longer polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Target concentration without affecting
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals
vPvB	Very persistent and very bioaccumulative
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
ICAO	International civil aviation organization

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IMDG	The international code for the transport of dangerous goods by sea
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations of the International Carriage of Dangerous Goods by Rail)
GHS	The Globally Harmonized System of Classification and Labeling of Chemicals "developed by the United Nations

### Key literature references and sources of data

- Regulation (EC) № 1907/2006 (REACH), as amended by 453/2010 / EC
- Regulation (EC) № 1272/2008 (CLP, EU GHS)

### List of relevant R-phrases (full text of the Code and, as mentioned in chapter 2 and 3)

missing

### Renunciation

The data in this safety data sheet correspond to the level of information, which we had on the date of its printing. Information should serve you a starting point for the safe handling of the product named in this safety data sheet during storage, handling, transportation and disposal. These do not apply to other products. Since the product is processed or blended with other materials, the data in this MSDS is not transferable to ready-made new materials.