



# PRODUCT INFORMATION SHEET

**MATERION**

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

<b>Trade name or designation of the mixture</b>	Copper Zinc Targets
<b>Registration number</b>	-
<b>Document number</b>	G35
<b>Synonyms</b>	None.
<b>Issue date</b>	08-February-2019
<b>Version number</b>	02
<b>Revision date</b>	12-February-2021
<b>Supersedes date</b>	08-February-2019

### 1.3. Details of the supplier of the product information sheet

#### Supplier

<b>Company name</b>	Materion Advanced Materials Germany GmbH	
<b>Address</b>	Borsigstrasse 10 63755 Alzenau DE	
<b>Division</b>		
<b>Telephone</b>	49.60.23.91.82.0	H. Schmiing
<b>e-mail</b>	Materion.Germany@materion.com	
<b>Contact person</b>	Hermann Schmiing	

<b>1.4. Emergency telephone number</b>	49.60.23.91.82.0	H. Schmiing
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### 1.2. Relevant identified uses of the substance or mixture and uses advised against

<b>Identified uses</b>	Manufacture of computer, electronic and optical products, electrical equipment Scientific research and development Other: Manufacture of medical and defense equipment
<b>Uses advised against</b>	Professional uses: Public domain (administration, education, entertainment, services, craftsmen) Consumer uses: Private households (= general public = consumers)

### 1.3. Details of the supplier of the safety data sheet

#### Supplier

<b>Company name</b>	Materion Advanced Materials Germany GmbH	
<b>Address</b>	Borsigstrasse 10 63755 Alzenau DE	
<b>Division</b>		
<b>Telephone</b>	49.60.23.91.82.0	H. Schmiing
<b>e-mail</b>	Materion.Germany@materion.com	
<b>Contact person</b>	Hermann Schmiing	

<b>1.4. Emergency telephone number</b>	49.60.23.91.82.0	H. Schmiing
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## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

#### Classification according to Regulation (EC) No 1272/2008 as amended

<b>Hazard summary</b>	The products are classified as articles and, as such, do not present a physical or health hazard in the present form. If the products are processed or handled in ways that generate particles (dust, fume, particles or powder) and/or chemical compounds, a potential health hazard could exist and risk management measures must be taken to minimize risk.
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### 2.2. Label elements

**Label according to Regulation (EC) No. 1272/2008 as amended**

**Contains:** COPPER FLAKES (COATED WITH ALIPHATIC ACID), Zinc  
**Hazard pictograms** None.  
**Signal word** None.  
**Hazard statements** The material as sold in solid form is generally not considered hazardous. However, if the process involves grinding, melting, cutting or any other process that causes a release of dust or fumes, hazardous levels of airborne particulate could be generated.

**Precautionary statements**

**Prevention** Observe good industrial hygiene practices.  
**Response** Wash hands after handling.  
**Storage**  
P405 Store locked up.  
**Disposal**  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.  
P502 Refer to manufacturer/supplier for information on recovery/recycling.

**Supplemental label information** For further information, please contact the Product Stewardship Department at +1.216.383.4019.

**2.3. Other hazards** None known.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****General information**

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
COPPER FLAKES (COATED WITH ALIPHATIC ACID)	50 - 75	7440-50-8 231-159-6	01-2119480154-42-0080	-	
<b>Classification:</b> -					
Zinc	25 - 50	7440-66-6 231-175-3	-	030-001-01-9	
<b>Classification:</b> Water-React. 3;H261					T

**SECTION 4: First aid measures**

**General information** Not available.

**4.1. Description of first aid measures**

**Inhalation** Not available.  
**Skin contact** Wash hands with water as a precaution.  
**Eye contact** Flush eyes with water as a precaution.  
**Ingestion** Rinse mouth. Get medical advice/attention if you feel unwell.

**4.2. Most important symptoms and effects, both acute and delayed** Under normal conditions of intended use, this material does not pose a risk to health.

**4.3. Indication of any immediate medical attention and special treatment needed** Treat symptomatically.

**SECTION 5: Firefighting measures**

**General fire hazards** No unusual fire or explosion hazards noted.

**5.1. Extinguishing media**

**Suitable extinguishing media** Powder. Dry sand.  
**Unsuitable extinguishing media** Do not use water as an extinguisher.

**5.2. Special hazards arising from the substance or mixture** This product is not flammable.

### 5.3. Advice for firefighters

**Special protective equipment for firefighters** Wear suitable protective equipment.

**Special firefighting procedures** Move containers from fire area if you can do so without risk.

**Specific methods** Use standard firefighting procedures and consider the hazards of other involved materials.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** Wear appropriate protective equipment and clothing during clean-up. For personal protection, see section 8 of the PIS.

**For emergency responders** Wear appropriate protective equipment and clothing during clean-up. Use personal protection recommended in Section 8 of the PIS.

**6.2. Environmental precautions** Avoid release to the environment.

**6.3. Methods and material for containment and cleaning up** Clean up in accordance with all applicable regulations.

**6.4. Reference to other sections** Not available.

## SECTION 7: Handling and storage

**7.1. Precautions for safe handling** Wear gloves to prevent metal cuts and skin abrasions during handling. Observe good industrial hygiene practices.

**7.2. Conditions for safe storage, including any incompatibilities** Keep locked up. Store away from incompatible materials (see Section 10 of the PIS).

**7.3. Specific end use(s)** Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

**Poland. Ordinance of the Minister of Labour and Social Policy on 6 June 2014 on the maximum permissible concentrations and intensities of harmful health factors in the work environment, Journal of Laws 2014, item 817**

Components	Type	Value
COPPER FLAKES (COATED WITH ALIPHATIC ACID) (CAS 7440-50-8)	TWA	0,2 mg/m <sup>3</sup>

**Biological limit values** No biological exposure limits noted for the ingredient(s).

**Recommended monitoring procedures** Follow standard monitoring procedures.

**Derived no effect levels (DNELs)** Not available.

**Predicted no effect concentrations (PNECs)** Not available.

### 8.2. Exposure controls

**Appropriate engineering controls** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

#### Individual protection measures, such as personal protective equipment

**General information** Not available.

**Eye/face protection** Wear approved safety glasses, goggles, face shield and/or welder's helmet when risk of eye injury is present, particularly during operations that generate dust, mist or fume.

#### Skin protection

- **Hand protection** Wear gloves to prevent metal cuts and skin abrasions during handling.

- **Other** No specific recommendations.

**Respiratory protection** If ventilation is insufficient, suitable respiratory protection must be provided.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

**Hygiene measures** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**Environmental exposure controls** Inform appropriate managerial or supervisory personnel of all environmental releases.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Appearance

**Physical state** Solid.

**Form** Solid.

**Colour** Yellow.

**Odour** None.

**Odour threshold** Not applicable.

**pH** Not applicable.

**Melting point/freezing point** 904,44 °C (1660 °F) estimated / Not applicable.

**Initial boiling point and boiling range** Not applicable.

**Flash point** Not applicable.

**Evaporation rate** Not applicable.

**Flammability (solid, gas)** None known.

#### Upper/lower flammability or explosive limits

**Explosive limit - lower (%)** Not applicable.

**Explosive limit - lower (%) temperature** Not applicable.

**Explosive limit – upper (%)** Not applicable.

**Explosive limit - upper (%) temperature** Not applicable.

**Vapour pressure** Not applicable.

**Vapour density** Not applicable.

**Relative density** Not applicable.

#### Solubility(ies)

**Solubility (water)** Insoluble.

**Solubility (other)** Not applicable.

**Partition coefficient (n-octanol/water)** Not applicable.

**Auto-ignition temperature** Not applicable.

**Decomposition temperature** Not applicable.

**Viscosity** Not applicable.

**Explosive properties** Not explosive.

**Oxidising properties** Not oxidising.

### 9.2. Other information

**Density** 8,22 g/cm<sup>3</sup> estimated

## SECTION 10: Stability and reactivity

**10.1. Reactivity** The product is stable and non-reactive under normal conditions of use, storage and transport.

**10.2. Chemical stability** Material is stable under normal conditions.

**10.3. Possibility of hazardous reactions** No dangerous reaction known under conditions of normal use.

**10.4. Conditions to avoid** Contact with incompatible materials.

**10.5. Incompatible materials** Strong oxidising agents.

**10.6. Hazardous decomposition products** Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition.

## SECTION 11: Toxicological information

**General information** Occupational exposure to the substance or mixture may cause adverse effects.

### Information on likely routes of exposure

<b>Inhalation</b>	Not likely, due to the form of the product.
<b>Skin contact</b>	No adverse effects due to skin contact are expected.
<b>Eye contact</b>	Not relevant, due to the form of the product.
<b>Ingestion</b>	Expected to be a low ingestion hazard.

**Symptoms** None known.

### 11.1. Information on toxicological effects

<b>Acute toxicity</b>	None known.
<b>Skin corrosion/irritation</b>	Not relevant, due to the form of the product.
<b>Serious eye damage/eye irritation</b>	Not likely, due to the form of the product.
<b>Respiratory sensitisation</b>	Not a respiratory sensitizer.
<b>Skin sensitisation</b>	Not a skin sensitiser.
<b>Germ cell mutagenicity</b>	Not classified.
<b>Carcinogenicity</b>	Not classified.
<b>Reproductive toxicity</b>	Not classified.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not an aspiration hazard.
<b>Mixture versus substance information</b>	No information available.
<b>Other information</b>	Not available.

## SECTION 12: Ecological information

### 12.1. Toxicity

<b>Product</b>		<b>Species</b>	<b>Test Results</b>
Copper Zinc Targets			
<b>Aquatic</b>			
<i>Acute</i>			
Crustacea	EC50	Daphnia	2,8 mg/l, 48 hours estimated
Fish	LC50	Fish	0,0401 mg/l, 96 hours estimated

<b>Components</b>		<b>Species</b>	<b>Test Results</b>
COPPER FLAKES (COATED WITH ALIPHATIC ACID) (CAS 7440-50-8)			
<b>Aquatic</b>			
<i>Acute</i>			
Crustacea	EC50	Blue crab ( <i>Callinectes sapidus</i> )	0,0031 mg/l
Fish	LC50	Fathead minnow ( <i>Pimephales promelas</i> )	0,0219 - 0,0446 mg/l, 96 hours

Zinc (CAS 7440-66-6)

<b>Aquatic</b>			
<i>Acute</i>			
Fish	LC50	Bony fish superclass ( <i>Osteichthyes</i> )	0,52 - 3,59 mg/l, 96 hours

\* Estimates for product may be based on additional component data not shown.

**12.2. Persistence and degradability** No data is available on the degradability of this product.

**12.3. Bioaccumulative potential** Not available.

**Partition coefficient n-octanol/water (log Kow)** Not available.

**Bioconcentration factor (BCF)** Not available.

<b>12.4. Mobility in soil</b>	Not available.
<b>12.5. Results of PBT and vPvB assessment</b>	Not a PBT or vPvB substance or mixture.
<b>12.6. Other adverse effects</b>	Not available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

<b>Residual waste</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.
<b>EU waste code</b>	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Disposal methods/information</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Special precautions</b>	Dispose in accordance with all applicable regulations.

## SECTION 14: Transport information

### ADR

14.1. - 14.6.: Not regulated as dangerous goods.

### RID

14.1. - 14.6.: Not regulated as dangerous goods.

### ADN

14.1. - 14.6.: Not regulated as dangerous goods.

### IATA

14.1. - 14.6.: Not regulated as dangerous goods.

### IMDG

14.1. - 14.6.: Not regulated as dangerous goods.

## SECTION 15: Regulatory information

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

#### EU regulations

**Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended**

Not listed.

**Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended**

Not listed.

**Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended**

COPPER FLAKES (COATED WITH ALIPHATIC ACID) (CAS 7440-50-8)

Zinc (CAS 7440-66-6)

**Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA**

Not listed.

#### Authorisations

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended**

Not listed.

#### Restrictions on use

**Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended**

Zinc (CAS 7440-66-6)

**Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.**

Not listed.

**Other EU regulations**

**Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended**

COPPER FLAKES (COATED WITH ALIPHATIC ACID) (CAS 7440-50-8)

Zinc (CAS 7440-66-6)

**Other regulations**

The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended.

**National regulations**

This safety data sheet conforms to the following laws, regulations and standards:

Act on the management of packaging and packaging waste of June 13, 2013  
Regulation of the Minister of Health of June 11, 2012 on the categories of dangerous substances and dangerous preparations whose packaging should be fitted with child-resistant closures and a tactile warning of danger

REGULATION OF THE MINISTER OF HEALTH of February 2, 2011 on tests and measurements of factors harmful to health in working environments

Regulation of Ministry of Labor and Social Policy of June 6, 2014. On the matter of maximum permissible concentrations and intensities of harmful factors in the work environment (Journal of Laws 2014, item. 817)

Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work, as amended. Follow national regulation for work with chemical agents in accordance with Directive 98/24/EC, as amended.

**Poland. Substances that could yield hazardous waste (Law on waste, DZ.U. poz. 21/2013, Annex 4)**

COPPER FLAKES (COATED WITH ALIPHATIC ACID) (CAS 7440-50-8)

**15.2. Chemical safety assessment**

No Chemical Safety Assessment has been carried out.

**SECTION 16: Other information**

**List of abbreviations**

Ceiling: Short Term Exposure Limit Ceiling value.

STEL: Short-Term Exposure Limit.

TWA: Time Weighted Average Value.

**References**

Not available.

**Information on evaluation method leading to the classification of mixture**

Not available.

**Full text of any H-statements not written out in full under Sections 2 to 15**

H261 In contact with water releases flammable gases.

**Revision information**

SECTION 2: Hazards identification: Hazard summary  
Composition / Information on Ingredients: Ingredient Classification  
Physical & Chemical Properties: Multiple Properties

**Training information**

Not available.

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