



# IDEAL WORK

## PUROMETALLO-PELTRO

Revision nr. 1  
Dated 31/01/2018  
Printed on February 14, 2018  
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## Safety Data Sheet

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

#### 1.1. Product identifier

Code: PUROMETALLO-PELTRO  
Product name

**1.2. Relevant identified uses of the substance or mixture and uses advised against**  
Intended use Charge for decorative coatings

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

Company name IDEAL WORK SRL  
Address Via Kennedy, 52  
Place and country 31030 Vallà di Riese Pio X (TV)  
Italy  
tel. +39 0423 /4535  
fax +39 0423 /748429

e-mail address for a competent person,  
responsible for the safety data sheet

[sicurezza@idealwork.it](mailto:sicurezza@idealwork.it)

#### 1.4 Emergency telephone number

For information in an emergency

**Poison center:**  
National Poisons Information Service (Birmingham  
Unit) City Hospital  
Dudley Rd Birmingham  
Telephone: +44 121 507 4123  
Fax: +44 121 507 55 88  
Emergency telephone: 844 892 0111

### SECTION 2. Hazards identification.

#### 2.1 Classification of the substance

2.1.1 Classification according to Regulation (EC) n. 1272/2008 (CLP / GHS):  
Class and hazard class codes (Reg. 1272/2008): Aquatic Acute 1, Aquatic Chronic 1  
Codes of hazard statements (Regulation 1272/2008): H400, H410

#### 2.2 Information to be indicated on the label

Labeling according to EC Regulation No. 1272/2008 (CLP / GHS)  
Pictograms:



Note: ATTENTION Symbol: Environment Pictogram code: GHS09

Indications of danger:

H400: Very toxic to aquatic organisms

H410: Very toxic to aquatic life with long lasting effects

Precautionary statements:

P273 Avoid spillage into the environment.

P391 Collect the sparse product.

P501 Dispose of contents / container in accordance with national regulations

Additional information:

None

#### 2.3 Other hazards

It can form an explosive mixture of dust and air in case of dispersion.

Zinc is NOT a PBT and vPvB substance according to EC Regulation 1907/2006, Annex 13



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### SECTION 3. Composition/information on ingredients.

#### 3.1 Substance: Zinc in powder (stabilized) to 97% (min) - Criteria Regulation n. 1272/2008

N° EINECS	N° CAS	N° INDEX	Chemical name	Conc (%p/p)	Category of danger	Indication of danger
231-175-3	7440-66-6	030-001-01-9	Zinco	min 97	Aquatic Acute 1 Aquatic Chronic 1	H400; H410

#### Note

In this section the classification of the aforementioned substance is indicated, including the category and hazard indication codes assigned according to their dangers for safety, health and the environment. The meaning of each hazard statement is indicated in section 16.

### SECTION 4. First aid measures.

#### 4.1 Description of first aid measures

Contact with skin: Wash thoroughly with soap and water. In case of irritation, consult a doctor  
In case of contact with the molten product, cool rapidly with water and consult a doctor immediately. Do not attempt to remove the molten product from the skin, as the skin easily tears. Cuts or abrasions should be treated promptly with thorough cleaning of the affected area.

Eye contact: Apply general measures if eye irritation occurs. Do not rub your eyes. Remove any contact lenses. Wash eyes thoroughly with water, taking care to rinse under the eyelids. If the irritation persists, continue rinsing for 15 minutes, rinse from time to time under the eyelids. If the trouble persists, consult a doctor.

Inhalation: Move exposed person immediately to fresh air. Perform artificial respiration if necessary. Consult a doctor as soon as possible.

Ingestion: In case of significant oral intake (various mg Zn), rinse the mouth and give 200-300 ml of drinking water.  
Do not induce vomiting.  
Consult a doctor if the disorder persists.

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

See section 11

#### 4.3 Indication of any need to immediately consult a doctor or special treatment

Information for the doctor: symptomatic treatment.

### SECTION 5. Firefighting measures.

#### 5.1 Extinguishing media

Suitable extinguishing media: Dry powder extinguishers class D or dry sand.

Do not use: DO NOT USE WATER JETS. AVOID HIGH-PRESSURE VEHICLES THAT COULD CAUSE THE FORMATION OF A POTENTIALLY EXPLOSIVE POWDER-AIR MIXTURE

Special protective equipment for fire-fighters: Wear self-protector and appropriate personal protective equipment (overalls, shoes, hard hat, gloves, glasses)

Possible risks of exposure: Do not breathe dust and fumes

Special procedures:

ATTENTION Particular attention must be paid to processes and / or systems that lead to the formation of extremely flammable dust clouds in the presence of primers, which can give rise to explosions.

#### 5.2 Special hazards arising from the substance

The product is not flammable.

#### 5.3 Recommendations for firefighters

Wear self-protector, protective suit and gloves. Dispose of fire-extinguishing material and means of protection according to official regulations.



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### SECTION 6. Accidental release measures.

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

- 6.1.1 From non-emergency personnel Avoid dust cloud formation Ensure adequate ventilation.  
Avoid inhalation of powders.  
Wear appropriate protective clothing.
- 6.1.2 From emergency personnel  
Avoid dust cloud formation. Ensure adequate ventilation.  
Avoid inhalation of powders. Wear protective clothing. Keep unprotected persons away

#### 6.2 Environmental precautions

#### 6.3 Methods and materials for containment and cleaning up

Do not use compressed air. Collect the product with a pallet in recycling containers.

### SECTION 7. Handling and storage.

#### 7.1 Avoid the formation of dust cloud, especially in closed containers (silos etc.)

Never reuse empty containers before they have undergone industrial cleaning or reconditioning.  
Before working on the fire, reclaim lines and containers.  
Before carrying out decanting operations, make sure that no incompatible substance remains in the tank.  
For the protection devices, refer to point 8 of this sheet

#### 7.2 Conditions for safe storage, including any incompatibilities

Environment covered, dry and naturally ventilated. Avoid depositing the material on the floor. Keep away from food, feed and beverages.  
Keep containers from strong oxidizers separate.  
The arrangement of the storage area must be such as to prevent percolation of accidental spills into the ground.  
Do not overlap more than 3 platforms (for products packaged in drums). Do not overlap more than 1 platform (for products packed in big-bags).  
It is advisable to use the product within one year from the date of shipment

#### 7.3 Specific end use (s): None

### SECTION 8. Exposure controls/personal protection.

#### 8.1 EXPOSURE LIMIT VALUES:

TLV - TWA (ACGIH, 2009) Zn 10 mg / m<sup>3</sup> (powder), 5 mg / m<sup>3</sup> (fumes)  
TLV - STEL (ACGIH, 2009) Zn 10 mg / m<sup>3</sup> (fumes)  
DNEL (INHALATION Zn INSOLUBLE) = 5 mg / m<sup>3</sup>  
AIR: The environment must have sufficient air changes to keep the concentration below the limits.

#### 8.2 CONTROL OF EXPOSURE AT WORK

Recommended monitoring equipment:  
Always maintain adequate ventilation to keep contaminants below the exposure limits

##### 8.2.1 Control of occupational exposure

8.2.1.1 Respiratory protection: Filter mask FFP2 (S) for harmful powders (support: half mask)  
Local fume extraction (high efficiency: 90-95%) Cyclones / Filters (to minimize dust emission)

8.2.1.2 Hand protection: not necessary

8.2.1.3 Eye protection: Tightly sealed safety glasses (CEN: EN 166 1F), do not use contact lenses

8.2.1.4 Skin protection: not necessary

##### 8.2.2 Control of environmental exposure

Prevent entry or abandonment in the surrounding environment.  
Cautarize against spillage in public sewers or in receiving water bodies.  
Dispose of the material and its containers to a hazardous waste collection point. Do not eat, drink or smoke in the handling and processing areas.



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### SECTION 9. Physical and chemical properties.

PHYSICAL STATE: at 20 ° C and 1013 hPa): Irregular powder of various grain sizes  
COLOR: Metallic gray-silver  
ODOR: Odorless  
THRESHOLD OF THE ODOR: N.A.  
PH: N.A.  
FUSION TEMPERATURE [° C]: 409  
BOILING TEMPERATURE: N.A. for solids with a melting temperature > 300 ° C (column 2 of Annex VII of the Reach Regulation)  
FLAMMABILITY POINT: N.A. for inorganic substances (column 2 of Annex VII of the Reach Regulation)  
EVAPORATION RATE: N.A. for solids  
FLAMMABILITY: According to the test N.1 of section 33 of the UN guideline for the classification of hazardous substances, chapter 33.2.1.4, Zinc powder:

Powder	Particle size $\mu\text{m}$ , %			Classification
	> 150	> 63	> 45	
Type S (D50 = 87 $\mu\text{m}$ )	5max	-	57-77	<i>Not flammable</i>
Type SSS (D50 = 43 $\mu\text{m}$ )	-	15max	10-35	<i>Not flammable</i>
Impalpable type (D50 = 4 $\mu\text{m}$ )	-	-	1max	<i>Not flammable</i>

Zinc powders type 250 and 850 - 250 are non-flammable

LOWER FLAMMABILITY OR EXPLOSIVITY LIMIT:

Type S: 2250 g / m<sup>3</sup>  
Type SSS: 1000 g / m<sup>3</sup>  
Impalpable type: 350 g / m<sup>3</sup>

STEAM PRESSURE:

(For particle size distribution and D50 see section 9.10 of this SDS)  
N.A. for solids with a melting temperature of around 300 ° C (column 2 of Annex VII of the Reach Regulation)

VAPOR DENSITY:

N.A.

APPARENT DENSITY [g / cm<sup>3</sup>]:

1.5 - 3.5

SPECIFIC WEIGHT [g / cm<sup>3</sup> at 20 ° C]:

7.14

SOLUBILITY IN WATER [mg / l]:

0.1

DISTRIBUTION COEFFICIENT:

N.A. for metals. Not applicable for inorganic substances (column 2 of Annex VII of the Reach Regulation)

AUTO IGNITION TEMPERATURE:

Dust	AUTO IGNITION TEMPERATURE (° C) IN:		MINIMUM IGNITION ENERGY (mJ)
	Cloud	Layer	
Type S	> 600	> 400	> 1000
Type SSS	> 600	> 400	> 1000
Impalpable type	460	380	> 1000

For the particle size distribution and the D50 see section 9.10 of this SDS

DECOMPOSITION TEMPERATURE:

N.A.

VISCOSITY:

It is determined in the molten liquid zinc state. The results show that the viscosity of liquid metal zinc increases slowly with decreasing temperature (between 417-521 ° C) until the melting temperature is reached



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### EXPLOSIVE PROPERTIES:

Based on the TG / DSC tests Zinc is not flammable, explosive or self-igniting.

In compliance with the ATEX Directive, the test carried out with the ASTM E-1226-00 method has highlighted the following explosion parameters for the different types of powders:

Dust	$P_{\max}$ (bar)	$dP/dt_{\max}$ (bar/s)	$K_{St}$ (bar·m/s)	Classe
Type S	3,3	12	3	St 1
Type SSS	3,4	46	12	St 1
Impalpable type	4,2	193	52	St 1

According to test N.5 of section 33 of the UN guideline for the classification of hazardous substances, chapter 33.4.1.4, Zinc powder in contact with water develops hydrogen gas in amounts of less than 1.1 liter per kilo and Now. This value does not lead to the inclusion of the substance in class 4.3 according to ADR.

## SECTION 10. Stability and reactivity.

**10.1 Reactivity:** Stable under normal conditions of use

**10.2 Chemical stability:** Flammable gases may develop in contact with acids / water

**10.3 Possibility of hazardous reactions:** Avoid contact with incompatible materials; v. subsections 10.4 and 10.5  
Flammable gas may develop in contact with acids

**10.4 Conditions to avoid:** Avoid cloud formation

**10.5 Incompatible materials:** Halides, halogenates, strong concentrated acids, oxidizing agents

**10.6 Hazardous decomposition products:** Hazardous reactions / polymerizations are not involved.

## SECTION 11. Toxicological information.

Penetration routes: inhalation, ingestion and contact with the skin.

Acute oral toxicity, cutaneous and inhalation:

Oral. DL-50 rat:> 2000 mg / kg body weight. Not classified. (Prinsen, 1996, in Chemical Safety Report (CSR) zinc, 2010)

Inhalation. DL-50 rat:> 5.4 mg / l. Not classified. (Arts, 1996, in Chemical Safety Report (CSR) zinc, 2010)

Dermal. Data not available

Exposure Risks:

Short-term toxicity STOT: Not classified Skin / eye irritation / corrosion: Not classified Respiratory or skin sensitization: Not classified

Long-term toxicity STOT-RE: Not classified

Mutagenesis: Not classified

Carcinogenesis: Not classified

Reproductive toxicity: Not classified

## SECTION 12. Ecological information.

### 12.1 Toxicity

#### 12.1.1 Acute toxicity

Toxicity for pH <7: EC50 = 0.9 mg Zn / l 48h (Dubia Ceriodaphnia)

Toxicity for pH > 7 - 8.5: EC50 = 0.3 mg Zn / l 72h (Selenastrum capricornutum)

M-factor: 1

**12.1.2 Chronic toxicity in fresh water:** Concentration of NO Predicted Effect (PNEC): 20.6 µg Zn / l

**12.1.3 Chronic toxicity in sea water:** PNEC: 6.1 µg Zn / l

**12.1.4 Toxicity of sediments in freshwater PNEC in sediment in fresh water is:** 235.6 mg Zn / kg dry weight of sediment

**12.1.5 Toxicity of sediments in sea water: PNEC in sediment in sea water is:** 113 mg Zn / kg dry weight of sediment

**12.1.6 Soil toxicity:** PNEC in soil is: 106.8 mg / kg dry weight of soil

**12.1.7 Toxicity to micro-organisms in waste water treatment plants:** PNEC is: 52 µg Zn / l



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**12.2 Persistence and biodegradability:** Not applicable

**12.3 Bioaccumulation potential:** Not applicable

**12.4 Mobility in the soil:** For the Zinc a distribution coefficient of 158.5 l / kg has been calculated

**12.5 Results of PBT and vPvB assessment:** The substance is not persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB)

**12.6 Other adverse effects:** Data not available

## SECTION 13. Disposal considerations.

### 13.1 Waste treatment methods

Disposal procedures in compliance with regulation 2014/1357 / EU and Decision 2008/98 / EU as amended by Decision 2014/955 / EU

Disposal of the product: dispose of as hazardous waste, according to current legislation. Due to the provenance of the waste and its current status, several European codes (CERs) may be applicable.

Disposal of containers: dispose of in accordance with current legislation. Due to the provenance of the waste and its current status, several European codes (CERs) may be applicable.

## SECTION 14. Transport information.

**14.1 UN number:** 3077

**14.2 UN proper shipping name:**

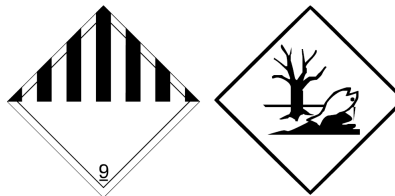
**ADR Road / rail transport /**

**inland waterway (ADR / RID / ADN):** HAZARDOUS SUBSTANCE FOR THE ENVIRONMENT (zinc powder), SOLID, N.O.S.

**IMDG Sea transport (IMDG Code)** HAZARDOUS SUBSTANCE FOR THE ENVIRONMENT (zinc powder), SOLID, N.O.S.

**ICAO T.I./IATA Air transport:** HAZARDOUS SUBSTANCE FOR THE ENVIRONMENT (zinc powder), SOLID, N.O.S.

**14.3 Class:** 9  
Hazard label / s: 9



**14.4 Packing group:** III

**14.5 Environmental hazards:** Classified as dangerous

**14.6 Special precautions for users:** EmS: F-A, S-F (\*)

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** Not applicable

(\*) - "Transport, including loading and unloading, must be carried out by persons who have received the necessary training required by the modal regulations concerning the transport of dangerous goods."

**Non-hazardous material for net quantities up to 5 kg - according to special provisions**

ADR: special provision 375

IMDG: special provision 2.10.2.7

IATA: special arrangement A197

## SECTION 15. Regulatory information.

**15.1 Legislation on health, safety and environment specific to the substance or mixture.**

The substance is NOT subject to:

Regulation (EC) n. 2037/2000 of the European Parliament and of the Council of 29 June 2000 on substances that deplete the ozone layer;

Regulation (EC) n. 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants;

Regulation (EC) n. 689/2008 of the European Parliament and of the Council of 17 June 2008 on the export and import of dangerous chemicals

**15.2 Chemical Safety Assessment:** Yes, it was conducted

## SECTION 16. Other information.

Type of revision: all sections - This sheet cancels and replaces any previous edition. Complies with Regulation (EU) no. 830/2015



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The information provided in this safety data sheet is based on the best scientific and toxicological knowledge at the date indicated above, taken from the above mentioned international bibliography, as of the date shown in the document. The data shown refer exclusively to the pure substance.

The user must comply with the regulations in force and ensure the updating, the suitability and completeness of the information contained; this in relation to the specific use that must be made of the substance in its production cycle.

Most important hazard statements used in sections 2 and 3 of this safety data sheet

H400: Very toxic to aquatic organisms

H410: Very toxic to aquatic life with long lasting effects

Safety data sheet based on

- EC Regulation n. 1907/2006 (REACH) and subsequent amendments and additions

- EC Regulation n. 1272/2008 (CLP) and subsequent amendments and additions

- Regulation (EU) n. 830/2015

Regulations and sources of reference

- ATEX Directive: Directive 99/92 / EC (safety of workplaces with risk of explosion);

- Directive 94/9 / EC (equipment and protective systems intended for use in potentially explosive atmospheres)

- Decree. 152/2006 Environmental regulations and succ. agg. and mod.

- ADR International agreement for the transport of dangerous goods by road.

- International Maritime Dangerous Goods Code (IMDG Code).

- International Air Transport Association (IATA).

- SAX'S, Dangerous Properties of Industrial Materials

- ACGIH (2008) American Conference of Governmental Industrial Hygienists

Zinc Chemical Safety Report (CSR) 2010

Abbreviations

CE10: Effect concentration for 10% of test organisms EC50: Effect concentration for 50% of test organisms CL10: Lethal concentration for 10% of test organisms CL50: Lethal concentration for 50% of test organisms

D50: particle size at the center of the distribution, ie the diameter corresponding to 50% of the cumulative curve

LD50: Lethal dose for 50% of DNEL test organisms: Derived No-effect Level

HC-5: Non-effect concentration for 95% of species = statistically derived limit value

NOEC: Non-effect concentration observed = highest concentration tested without PBT effect: persistent, bioaccumulative and toxic

PNEC: Non-effect Concentration expected

REACH: EC regulation on Registration, Evaluation and Authorization of Chemicals STOT: Toxicity for a specific target organ.

TG / DSC: Simultaneous Differential Scanning Thermogravimetry-Calorimetry TLV-TWA: Threshold Limit Value (TLV) - Reported at 8 hours.

vPvB: very toxic and very bioaccumulative