

## **EG-SAFETY DATA SHEET (91/155/EWG)**

Product name: „Coollaboratory Liquid MetalPad“  
Version 1.0 / EN: Rewrite at 10.12.2006

### **1. IDENTIFICATION OF SUBSTANCE/PREPARATION AND COMPANY**

**1.1 Identification of substance/preparation:**

„Coollaboratory Liquid MetalPad“

**1.2 Use of substance/preparation:**

heat conduction foil, heat conduction pad

**1.3 EG-Supplier (Company/Supplier/Dealer):**

Coollaboratory  
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**Product support:**

E-Mail: [support@coollaboratory.com](mailto:support@coollaboratory.com)

### **2. COMPOSITION/INFORMATION ON CONSTITUENTS**

**2.1 Chemical characterization:**

Suspension of metals in a metal alloy.

<b>Content materials:</b> INDIUM	CAS-Nr.: 7440-74-6	EG-Nr.: 231-180-0
COPPER	CAS-Nr.: 7440-50-8	EG-Nr.: 231-159-6
BISMUTH	CAS-Nr.: 7440-69-9	EG-Nr.: 231-177-4

### **3. POTENTIAL HAZARDS**

**3.1 Classification:**

No dangerous product in the sense of the guideline 67/548/EWG.

### **4. FIRST AID MEASURES**

**4.1 After inhalation:**

The inhalation is not a possible way of the exposition.

**4.2 After skin contact:**

Wash off with plentifully water and soap.

**4.3 After eye contact:**

Rinse out with plentifully lukewarm water with opened eyelid gap.

**4.4 After swallowing:**

It leaves the body on the natural way.

## 5. FIRE-FIGHTING MEASURING

- 5.1 Suitable fire extinguishing agents:**  
Co-ordinate with environment.
- 5.2 Special endangerment by the material or the product, its combustion products or developing gases:**  
Not inflammable.

## 6. MEASURES TO BE TAKEN IN CASE OF UNINTENTIONAL RELEASE

- 6.1 Personal precautionary measures:**  
Slip hazard by run out product.
- 6.2 Environmental protection measures:**  
Take up the run out product. Supply the product remainders for disposal.
- 6.3 Cleaning methods:**  
Large quantities are up-turned. Remove any product residues by soap solution.
- 6.4 Additional references:**  
none

## 7. HANDLING AND STORAGE

- 7.1 Handling**
- 7.1.1 References to safe handling:**  
Avoid bury and unnecessary contact
- 7.2 Storage**  
Plastics (PE, PP) are well suitable as container material

## 8. EXPOSURE CONTROL AND PERSONAL PROTECTIVE EQUIPMENT

- 8.3 Individual protective equipment**
- 8.3.1 Respiratory protection:**  
In occurring oxide smoke use filter P3
- 8.3.2 Hand protection:**  
With full contact:  
Glove material: Nitrile India rubber  
Layer strength: 0,11 mm  
Break-through time: > 480 Min.
- 8.3.3 Eye protection:**  
Wear protective goggles in case of potential contact with the eyes.
- 8.3.4 Body protection:**  
Wear suitable work clothing if there is a risk of splashing.
- 8.3.5 Data to the industrial hygiene:**  
Switch contaminated clothes. Wash your hands after work with the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Appearance

Form: Liquid metal alloy - solid  
 Color: silver  
 Odor: odorless

### 9.2 Safety-relevant data

Type	Sign
pH-value (20 °C)	not applicable
Melting point (°C)	59°C
Boiling point (°C)	> 1350 °C
Inflammability (°C)	not applicable
flash point (°C)	not applicable
Vapor pressure (°C)	<10-8Torr at 500 °C
Density (g/cm <sup>3</sup> )	8,29 g/cm <sup>3</sup>
bulk density (kg/m <sup>3</sup> )	not applicable
Solubility in water ( 20°C in g/l)	insoluble
Solubility in organic solvents	insoluble
upper explosion limit	not applicable
lower explosion limit	not applicable

## 10. STABILITY AND REACTIVITY

### 10.1 Conditions to be avoided:

No conditions

### 10.2 Substances to be avoided:

Halogen one, hydrogen peroxide/hydrogen chloride, chlorine, bromine

### 10.3 Other information:

The product has an alloying effect on metal surfaces, especially light metals. If necessary, the product should be tested under the specific conditions to determine any reactions with materials and chemical substances.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Toxicological examinations

#### 11.1 Acute toxicity:

The metal alloy has not been tested, the single components of the alloy are below the limits of acute toxicity even if a full resorption is assumed.

#### 11.2 Effects at humans:

So far as the generally applicable regulations of industrial hygiene were adhered to, any harmful effect on the health has not become known.

<u>After swallowing:</u>	Leaves the body on natural way.
<u>After skin contact:</u>	Nothing.
<u>After inhalation:</u>	Due to the very low steam pressure not applicably.
<u>After eye contact:</u>	Splashes in the eyes may cause irritations.

## 11.3 Further toxicological references:

Dangerous characteristics are not to be excluded, but with adequate use not probably.

## 11.4 General remarks:

The product is to be handled with the caution usual with chemicals.

## 12. ECOLOGICAL INFORMATION

### 12.1 Ecological toxicity:

The product is not miscible with water.

Quantitative data for the ecological effect of this product are not present.

### 12.2 Overall evaluation:

In the case of appropriate handling and use no ecological problems are to be expected.

## 13. DISPOSAL INFORMATION

### 13.1 Disposal:

Intended use or recycling is to be preferred to the disposal. The product should be disposed according to the locally valid laws on waste disposal and (the competent authorities are responsible to give the necessary information).

### 13.2 Additional references:

Cleaning agent: Soap/water solution for surfaces..

## 14. TRANSPORT INFORMATION

### 14.1 Transportation by road/rail (ADR/RID/GGVSE): no restrictions

Class: -  
Danger note: -  
UN-Nr.: -  
Group of packing: -  
Correct technical name: -

### 14.2 Transportation by sea/marine (IMDG-Code/GGVSee): no restrictions

Class: -  
UN-Nr.: -  
Group of packing: -  
Correct technical name: -  
EmS: -  
Sea pollutant (Marine Pollutant): No sea pollutant

### 14.3 Transportation by air transport (ICAO-IATA/DGR): no restrictions

Class: -  
UN-Nr.: -  
Group of packing: -  
Correct technical name: -

### 14.4 Additional references:

The transportation regulations are quoted after the international adjustments and in the form, how they are used in Germany. Possible deviations in other countries are not considered.

## 15. REGULATORY INFORMATION

The alloy is not dangerous working material in the sense of the guideline 67/548/EWG.

The product is compliant with the guideline 2002/95/EG (RoHS) and does not exceed the predetermined conditions of the guideline 2005/618/EG.

The product is equal to the terms and conditions of the ElektroG- particularly with regard to indexed commodity substance prohibition at the chapter 2,§5 (1).

**National regulations:**

**Water endangerment class:** nwg (not hazardous to waters)  
Classification after VwVwS, addition 1

## 16. OTHER DATA

Coolaboratory doesn't assume any responsibility for the incorrect usage of this product and the resulting damages and consequences.

The data rely on the today's conditions of our knowledge and serve to describe the product regarding safety precautions which can be met. They do not represent a warranty of the product described by characteristics.

All details, which are going beyond, have only indicated character, because the methods and conditions for storage, use and disposal after ownership transfer of our products in delivery status lay outside of our competence.