

# MATERIAL SAFETY DATA SHEET


Resin8 Liquid Metal (Silver)

*resin*<sup>8</sup>

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1 Product identifier:**  
Resin8 Liquid Metal Powder (Silver)
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**  
Powder Metallurgy, Decorative Castings/Coatings
- 1.3 Details of the supplier of the safety data sheet**  
Resin8 Craft Supplies Ltd  
Withytree Farm  
Broadway Road  
Winchcombe  
Gloucestershire  
GL54 5NT  
United Kingdom  
Phone: 01242 603624  
Email: [info@resin8.co.uk](mailto:info@resin8.co.uk)  
Web: [www.resin8.co.uk](http://www.resin8.co.uk)
- 1.4 Emergency telephone number:**  
0044 (0) 1242 603624 (Monday-Friday 09:00 – 17:00)

## SECTION 2: HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture**  
Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]  
Flam. Sol. 1 H228 Flammable solid
- 2.2 Label elements**  
**Labeling according to Regulation (EC) No 1272/2008 [CLP]**
- Pictogram:
- 
- Signal word: Danger
- Hazard statement(s): H228 Flammable solid.  
H261 In contact with water releases flammable gas.
- Precautionary statement(s): P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P223 Keep away from any possible contact with water, because of violent reaction and possible flash fire.  
P231 + P232 Handle under inert gas. Protect from moisture.  
P335 + P334 Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.  
P240 Ground/bond container and receiving equipment.  
P241 Use explosion-proof electrical/ventilating/lighting/...../equipment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P370 + P378 In case of fire: Use special powders for metal fires or Sand for extinction.

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P402 + P404 Store in a dry place. Store in a closed container.  
P501 Dispose of contents as hazardous waste to landfill

## 2.3 Other hazards

Fine dust clouds may form an explosive mixture with air. Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat. May be combustible.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBT's or vPvB's or have been assigned a workplace exposure limit and hence require reporting in this section. Classification System is according to latest editions of EU lists and is extended by company and literature data.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Description of Material:

Aluminium Powder (stabilised)

Synonyms: None

Chemical Composition:

EINECS N°	CAS N°	INDEX N° C	Chemical name	Conc. (% w/w)	Hazard class and category code	Hazard statement
231-072-3	7429-90-5	0 13-002-00-1	Aluminum	>80	F	Flam. Sol. 1 H228

## SECTION 4: FIRST AID MEASURES

### 4.1 Description of first aid measures:

#### General Advice:

First aid followed by medical attention.

#### Inhalation:

Move exposed person to fresh air. Keep warm and at rest. Seek medical attention as soon as possible.

#### Skin contact:

Wash with mild soap and water. Generally the product does not irritate the skin. Seek medical advice if irritation occurs/persists.

#### Eye Contact:

Rinse opened eye for several minutes under running water. Seek medical attention if irritation persists.

#### Ingestion:

Wash mouth out with water, seek medical attention if symptoms occur.

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

No further relevant information available

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

No further relevant information available

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## SECTION 5: FIREFIGHTING MEASURES

- 5.1 Extinguishing media:**  
Dry sand, dry powder extinguisher, fire blanket
- Extinguishing Media not suitable for safety reasons:**  
Water, Carbon dioxide, foam, ABC Powder
- 5.2 Special hazards arising from the substance or mixture:**  
Contact with water liberates extremely flammable gas (hydrogen)
- 5.3 Advice for fire-fighters:**  
Wear self contained breathing apparatus for fire fighting if necessary.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures:**  
Wear protective equipment.  
Keep unprotected persons away.  
Avoid formation of dust
- 6.2 Environmental precautions:**  
Do not allow product to reach ground water, water bodies or sewerage system.
- 6.3 Methods and material for containment and cleaning up:**  
Pick up manually  
DO NOT USE a vacuum.
- 6.4 Reference to other sections:**  
See also sections 8 and 13

## SECTION 7: HANDLING AND STORAGE

- 7.1 Precautions for safe handling:**  
Close containers carefully after use  
Maintain good housekeeping to avoid causing dust and deposit of dust.  
Keep away from sources of ignition. No smoking  
Use intrinsically safe equipment and non sparking tools. Protect against electrostatic charges (e.g use full metal shovels)  
Whilst refilling connect containers with earthing clamps
- 7.2 Conditions for safe storage, including any incompatibilities:**  
Store in cool dry place in non combustible containers (original containers preferred). Do not store with oxidising agents, other combustible materials, acids or alkalis. Store away from steam pipes, radiators or other sources of heat or moisture.
- 7.3 Specific end uses:**  
None

## SECTION 8: EXPOSURE CONTROLS

- 8.1 Control Parameters:**  
OES: Average daily value: 10 mg/m<sup>3</sup> total dust  
(8hr TWA) 4 mg/m<sup>3</sup> respirable fraction  
(Ref: EH40/2005 as consolidated with amendments Oct 2007.)  
National exposure control limits must be considered where appropriate

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## 8.2 Personal Protection

### Respiratory protection:

Cartridge filter type P 1 according to EN 149:2001 is recommended if exposure control limit is exceeded.

### Hand Protection:

Gloves according to EN 388 and 407 are recommended.

### Eye Protection:

Tight safety goggles.

### Body Protection:

Non conductive and fireproof clothing (e.g Nomex III antistatic) according to EN 531 and 1149-1.

### Foot Protection

Non conductive boot according to EN345.

### General Safety and Hygiene measures:

In general, no pure synthetic fibres (electrostatic charge). Wash hands before breaks and at the end of work

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

a) Appearance:	Silver grey powder
b) Odour:	Slight waxy
c) Odour threshold	No data available
d) pH	No data available
e) Melting point/freezing point	660°C
f) Initial boiling point and boiling range	2467°C
g) Flash point	590°C
h) Evaporation rate	No data available
i) Flammability (solid, gas)	< 10 minutes (Ann. A9 CD 67/548/EEC)
j) Upper/lower flammability or explosive limits	Product is not hazardous with regard to explosions, however it may form an explosive dust/air mixture.
k) Vapour pressure	no data available
l) Vapour density	no data available
m) Relative density	2.7 g/cm <sup>3</sup> at 20°C
n) Specific Weight	No data available
o) Water solubility	Insoluble
p) Partition coefficient:n octanol/water	No data available
q) Autoignition temperature	No autoignition
r) Decomposition temperature	No data available
s) Viscosity	no data available
t) Explosive properties	Lower limit 30g/m <sup>3</sup> , upper Limit not determined
u) Oxidizing properties	No data available

### 9.2. Other information

No data available.

## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity:

No decomposition in usual conditions

### 10.2 Chemical stability:

Stable under normal conditions of use

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## 10.3 Possibility of hazardous reactions:

Avoid dust clouds, they may form explosible dust-air-mixture.

Reacts with halogenated compounds.

Reacts with acids, alkalis and oxidizing agents.

Reacts with alkalis, acids, halogens and oxidizing agents.

Contact with acids and alkalis may release hydrogen.

Contact with water may release flammable gases.

Risk of dust explosion.

## 10.4 Conditions to avoid:

No further relevant information available

## 10.5 Hazardous decomposition products:

No further relevant information available

## 10.6 Incompatible materials

No further relevant information available

## SECTION 11: TOXICOLOGICAL INFORMATION

There are no data available on the mixture itself. The product is not classified as hazardous according to Regulation (EC) No. 1272/2008 as amended.

Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. Exposure to airborne concentrations above statutory or recommended limits may cause irritation of the eyes. Fine dust clouds may form explosive mixtures with air.

### 11.1 Information on toxicological effects:

#### Acute toxicity

Not determined - Classification according to Regulation (EC) No. 1272/2008 (CLP/GHS)

#### Skin corrosion/irritation

Not determined - Classification according to Regulation (EC) No. 1272/2008 (CLP/GHS)

#### Respiratory or skin sensitization

Not determined - Classification according to Regulation (EC) No. 1272/2008 (CLP/GHS)

#### Germ cell mutagenicity

Not applicable

#### Carcinogenicity

Not applicable

#### Reproductive toxicity

Not determined - Classification according to Regulation (EC) No. 1272/2008 (CLP/GHS)

#### Specific target organ toxicity - single exposure

Not determined - Classification according to Regulation (EC) No. 1272/2008 (CLP/GHS)

#### Specific target organ toxicity - repeated exposure

Not determined - Classification according to Regulation (EC) No. 1272/2008 (CLP/GHS)

#### Aspiration hazard

Not determined - Classification according to Regulation (EC) No. 1272/2008 (CLP/GHS)

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## SECTION 12: ECOLOGICAL INFORMATION

There are no data available on the mixture itself.

Do not allow to enter drains or watercourses

### 12.1 Ecotoxicity:

The product is not classified as hazardous according to Regulation (EC) No. 1272/2008 as amended.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods:

#### Product:

Remove in accordance with local official regulations. Dispose of at a hazardous waste landfill. Allocation of a waste code number (12 01 04) non-ferrous metal dusts and particles according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

#### Used packaging materials:

Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local/state/federal regulations.


## SECTION 14: TRANSPORT INFORMATION

	ADR/RID	IMDG	IATA
14.1 UN number	1309	1309	1309
14.2 UN Proper shipping name	ALUMINIUM POWDER, COATED	ALUMINIUM POWDER, COATED	ALUMINIUM POWDER, COATED
14.3 Transport Hazard Class(es)	4.1 Flammable solids, selfreactive substances and solid desensitised explosives	4.1 Flammable solids, selfreactive substances and solid desensitised explosives	4.1 Flammable solids, selfreactive substances and solid desensitised explosives
14.4 Packing group	II	II	II
14.5 Environmental Hazards	Not Classified as hazardous	Not Classified as hazardous	Not Classified as hazardous
14.6 Special Precautions for user	(*)	EmS: F-G, S-G (*)	(*)
14.7 Transport in Bulk according	Not applicable	Not applicable	Not applicable

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	to Annex II of Marpol73/78  and the IBC code			
	14.8 Labelling			
	Additional Information	Limited Quantities LQ8  Transport Category 2  Tunnel Restriction Code E		
(*) – The transport, comprising charge and discharge, must be made by people who have been trained on 'Dangerous Goods Regulations'				

## SECTION 15: REGULATORY INFORMATION

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**  
**EU Regulation (EC) No. 1907/2006 (REACH)**  
**Annex XIV – List of substances subject to authorization**  
**Substances of Very High Concern**  
 None of the components are listed.  
**Annex XVII – Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.**  
 Not applicable
- 15.2 Chemical Safety Assessment**  
 Has been carried out

## SECTION 16: OTHER INFORMATION

- 16.1 Other information:**  
 This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.  
 Products covered by this data sheet include:  
 Fine Aluminium Powder 124NS  
 Flake Aluminium Powder 8982  
 Lining Aluminium Powder 400  
 Aluminium Ink Lining 500  
 Aluminium Super Ink Lining 600  
 (this list is not exhaustive)

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Laws and References

- Regulation EC n. 1907/2006 (REACH)
- Regulation EC n. 2172/2008 (CLP)
- Regulation EC n. 790/2009
- Regulation EC n. 453/2010
- ADR (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG Code (International Maritime Dangerous Goods Code).
- IATA (International Air Transport Association).
- SAX'S, (Dangerous Properties of Industrial Materials)
- ACGIH (2009) American Conference of Governmental Industrial Hygienists
- Explosibility of Metal Powders, 1964. Authors: Murray Jacobson, Austin R. Cooper and John Nagy; researchers of the Bureau of Mines, Pittsburgh, Pa.

## 16.2 Notice to reader:

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



*The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.*