SAFETY DATA SHEET
ALUMINIUM METAL POWDER

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1. Product Identifiers

Product Name:	**Aluminium Metal Powder**
CAS-No.:	**7429-90-5**
EC No.:	**231-072-6**
REACH registration number	**01-2119529243-45-XXXX**

1.2. Relevant Identified uses of the substance or mixture and uses advised against

Powder Metallurgy, Decorative Castings/Coatings, Industrial Coatings.

1.3. Company/undertaking identification

Easy Composites Ltd
Unit 39,
Park Hall Business Village
Longton, Stoke-on-Trent
ST3 5XA
United Kingdom

Tel: +44 (0)1782 454499
Email: info@colorlord.com

1.4. Emergency Contact Information

Emergency tel: +44 (0) 1782 454499

(office hours only)

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]
Not classified as dangerous

2.2. Label elements

Labeling according to Regulation (EC) No 1272/2008 [CLP]

Pictogram: None

Signal word: None

Hazard statement(s) None

Precautionary statement(s) None

Classification was done according Annex VI of directive (EU) No. 1272/2008. Nota T was used. Tests and classification were done according Part III, sub-section 33.2.1 and 33.3.1.6, of the UN recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria.

2.3. Other hazards

If suspended in air, dust clouds can be ignited in the presence of an ignition source. Explosion risk!

Prolonged contact of Aluminium powder with water may result in a reaction releasing hydrogen. Ignition risk.

Aluminium powder will react with oxidising agents, acids and alkalis, causing heating and hydrogen release. Explosion risk.

Aluminium powder may react violently with halogens and halogenated hydrocarbons.

The substances in the mixture do not meet the criteria for PBT or vPvB substances

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Description of Material: Aluminium Powder

Synonyms: None

Chemical Composition:

EINECS N°	CAS N°	INDEX N°	Chemical name	Conc. (% w/w)	Hazard class and category code	Hazard statement	Danger symbol/R phrases
231-072-3	7429-90-5	013-002-00-1	Aluminium	>99	-	-	-

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

5. FIRE FIGHTING MEASURES

5.1 Suitable 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 firefighters:
Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions:
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 for cleaning up:
Pick up manually
DO NOT USE a vacuum.

6.4 Reference to other sections:
See also sections 8 and 13

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters:

OES: *Average daily value:* 10mg/m^3 total dust
(8hr TWA) 4mg/ m^3 respirable fraction

(Ref: EH40/2005 as consolidated with amendments Oct 2007.)

National exposure control limits must be considered where appropriate.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

a)	Appearance:	Silver grey coloured powder
b)	Odour:	odourless
c)	Odour threshold	no data available
d)	pH	no data available
e)	Melting point/freezing point	660^{o}C
f)	Initial boiling point and boiling range	2467^{o}C
g)	Flash point	>600^{o}C
h)	Evaporation rate	no data available
i)	Flammability (solid, gas)	Product is not flammable
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^3 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^3, upper Limit not determined
u)	Oxidizing properties	no data available

9.1 Other Safety Information
No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity
No decomposition in usual conditions

10.2 Chemical stability
Stable under normal conditions of use

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, halogenes 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 Incompatible materials
No further relevant information available

10.6 Hazardous decomposition products
No further relevant information available

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

	Aluminium
Oral	LD-50 rats >2000mg/kg body weight
Inhalation	LC-50 rats 888 mg/m^3

Skin corrosion/irritation
Not classified

Serious eye damage/eye irritation
Not classified

Respiratory or skin sensitization
Not classified

Germ cell mutagenicity
Not classified

Carcinogenicity
Not classified

Reproductive toxicity
Not classified

Specific target organ toxicity - single exposure
Not classified

Specific target organ toxicity - repeated exposure
Not classified

Aspiration hazard
Not classified

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity

Aluminium is not classed ecotoxic according to 67/548/EC
Water hazard class (WGK): Generally not hazardous to water (self classification according to VwVwS)

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION:

	ADR/RID	IMDG	IATA
14.1 UN number	Not applicable	Not applicable	Not applicable
14.2 UN Proper shipping name	Not dangerous goods	Not dangerous goods	Not dangerous goods
14.3 Transport Hazard Class(es)	Not Classified as hazardous for transport	Not Classified as hazardous for transport	Not Classified as hazardous for transport

14.4 Packing group	Not applicable	Not applicable	Not applicable
14.5 Environmental Hazards	Not Classified as hazardous	Not Classified as hazardous	Not Classified as hazardous
14.6 Special Precautions for user	(*)	(*)	(*)
14.7 Transport in Bulk according to Annex II of Marpol73/78 and the IBC code	Not applicable	Not applicable	Not applicable
14.8 Labelling	Not applicable		
(*) – The transport, comprising charge and discharge, must be made by people who have been trained on 'Dangerous Goods Regulations'			

15. REGULATORY INFORMATION

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

The mixture is NOT subject to:

- Regulation (EC) n. Regulation (EC) No 2037/2000 of the European Parliament and of the Council of 29 June 2000 on substances that deplete the ozone layer;

- Regulation (EC) No 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 concerning the export and import of dangerous chemicals.

15.2 Chemical Safety Assessment

Has been carried out for aluminium

16. OTHER INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Products covered by this data sheet include:

99.7% Aluminium Powder - 63 micron
99.5% Aluminium Powder - 53 micron
99.7% Aluminium Powder - 250#
99.7% Aluminium Powder - 100/200#
99.7% Aluminium Powder - 120#
99.7% Aluminium Powder - 150#
99.7% Aluminium Powder - <5 micron

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Laws and References

- Directive 2004/74/EC
- 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.
