



SAFETY DATA SHEET

MATERION

1. Identification

Product identifier Aluminum Copper Product

Other means of identification None.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Materion Advanced Materials Group

Address 42 Mt. Ebo Road South
Brewster, NY 10509
United States

Telephone Supplier Phone 1+845.279.0900

Website materion.com

E-mail Not available.

Emergency phone number Chemtrec 1+703.527.3887

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Not classified.

Environmental hazards Hazardous to the aquatic environment, acute hazard Category 1
Hazardous to the aquatic environment, long-term hazard Category 1

OSHA defined hazards Not classified.

Label elements

Hazard symbol None.

Signal word None.

Hazard statement Not available.

Precautionary statement

Prevention Not available.

Response Not available.

Storage Not available.

Disposal Not available.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Aluminum		7429-90-5	90 - 99.95
Copper		7440-50-8	0.05 - 10

4. First-aid measures

Inhalation Not available.

Skin contact Not available.

Eye contact Not available.
 Ingestion Not available.
 Most important symptoms/effects, acute and delayed Not available.

5. Fire-fighting measures

Suitable extinguishing media Not available.
 Unsuitable extinguishing media Not available.
 Specific hazards arising from the chemical Not applicable.
 Special protective equipment and precautions for firefighters Not available.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Not available.
 Methods and materials for containment and cleaning up Not available.

7. Handling and storage

Precautions for safe handling Not available.
 Conditions for safe storage, including any incompatibilities Not available.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Aluminum (CAS 7429-90-5)	PEL	5 mg/m3	Respirable dust.
		15 mg/m3	Total dust.
Copper (CAS 7440-50-8)	PEL	1 mg/m3	Dust and mist.
		0.1 mg/m3	Fume.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Aluminum (CAS 7429-90-5)	TWA	1 mg/m3	Respirable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Aluminum (CAS 7429-90-5)	TWA	5 mg/m3	Respirable.
		5 mg/m3	Welding fume or pyrophoric powder.
		10 mg/m3	Total
		1 mg/m3	Dust and mist.
Copper (CAS 7440-50-8)	TWA	1 mg/m3	Dust and mist.

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

Individual protection measures, such as personal protective equipment

Eye/face protection Not available.
 Skin protection
 Hand protection Not available.
 Other Not available.
 Respiratory protection Not available.
 Thermal hazards Not available.

9. Physical and chemical properties

Appearance

Physical state	Solid.
Form	Not available.
Color	Not available.
Odor	Not applicable.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	1220 °F (660 °C) estimated
Initial boiling point and boiling range	4220.6 °F (2327 °C) estimated
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	0.03 hPa estimated
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not applicable.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	3.01 g/cm3 estimated
Specific gravity	3.01 estimated

10. Stability and reactivity

Reactivity	Not available.
Chemical stability	Not available.
Possibility of hazardous reactions	Not available.
Conditions to avoid	Not available.
Incompatible materials	Not available.
Hazardous decomposition products	Not available.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Not available.
------------	----------------

Skin contact	Not available.
Eye contact	Not available.
Ingestion	Not available.
Symptoms related to the physical, chemical and toxicological characteristics	Not available.

Information on toxicological effects

Acute toxicity	Not available.
Skin corrosion/irritation	Not available.
Serious eye damage/eye irritation	Not available.
Respiratory or skin sensitization	
Respiratory sensitization	Not available.
Skin sensitization	Not available.
Germ cell mutagenicity	Not available.

Carcinogenicity

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity	Not available.
Specific target organ toxicity - single exposure	Not available.
Specific target organ toxicity - repeated exposure	Not available.
Aspiration hazard	Not available.

12. Ecological information

Ecotoxicity

Product		Species	Test Results
ALUMINUM - COPPER			
Aquatic			
Crustacea	EC50	Daphnia	3.4569 mg/l, 48 hours estimated
Fish	LC50	Fish	2.2978 mg/l, 96 hours estimated
Components		Species	Test Results
Aluminum (CAS 7429-90-5)			
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	0.16 mg/l, 96 hours

Persistence and degradability	Not available.
Bioaccumulative potential	Not available.
Mobility in soil	Not available.
Other adverse effects	Not available.

13. Disposal considerations

Disposal instructions	Not available.
Hazardous waste code	Not regulated.
Waste from residues / unused products	Not available.
Contaminated packaging	Not available.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory information

US federal regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Copper (CAS 7440-50-8) Listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Aluminum	7429-90-5	90 - 99.95
Copper	7440-50-8	0.05 - 10

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US - New Jersey RTK - Substances: Listed substance

Aluminum (CAS 7429-90-5)
Copper (CAS 7440-50-8)

US - Pennsylvania RTK - Hazardous Substances: All compounds of this substance are considered environmental hazards

Copper (CAS 7440-50-8)

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Aluminum (CAS 7429-90-5)
Copper (CAS 7440-50-8)

US. Massachusetts RTK - Substance List

Aluminum (CAS 7429-90-5)

Copper (CAS 7440-50-8)

US. New Jersey Worker and Community Right-to-Know Act

Aluminum (CAS 7429-90-5)

Copper (CAS 7440-50-8)

US. Pennsylvania RTK - Hazardous Substances

Aluminum (CAS 7429-90-5)

Copper (CAS 7440-50-8)

US. Pennsylvania Worker and Community Right-to-Know Law

Aluminum (CAS 7429-90-5)

Copper (CAS 7440-50-8)

US. Rhode Island RTK

Aluminum (CAS 7429-90-5)

Copper (CAS 7440-50-8)

US. California Proposition 65

Not Listed.

16. Other information, including date of preparation or last revision

Issue date	05-28-2015
Version #	01
Disclaimer	Not available.