

**1. Product and Company Identification**

**Product name:** Aluminum metal 99.99

**Synonym(s):** Pure; 99.99%

**Prepared by:** Beck Aluminum Corporation  
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**2. Hazards Identification**

Not hazardous in solid form. Fines and/or particles from processing may be readily ignitable. Fine particles and molten metal are highly reactive with water, oxidizers, acids and alkalis, halogenated compounds and certain metal oxides.

**3. Composition and Ingredients**

Designation	C.A.S.No.	EC number	Content (%)
Aluminum (Al)	7429-90-5	231-072-3	99.99
Silicon (Si)	7440-21-3	231-130-8	<.006
Copper (Cu)	7440-50-8	231-159-6	<.006
Zinc (Zn)	7440-66-6	231-158-0	<.006
Magnesium (Mg)	7439-95-4	231-104-6	<.006
Titanium (Ti)	7440-32-6	231-142-3	<.002
Manganese (Mn)	7439-96-6	231-105-1	<.002
Gallium (Ga)	7440-55-3	231-163-8	<.005
Vanadium (V)	7440-62-2	231-171-1	<.005

**4. First Aid Response**

**Inhalation of dust:** In case of discomfort, remove to a ventilated area. If discomfort persists, consult a physician.

**Skin contact:** In case of burns with hot metal, rinse with cold water. If burn is severe, consult a physician.

**Eyes contact:** Flush eyes thoroughly with water, taking care to rinse under eyelids. If irritation persists, continue flushing for 15 minutes, rinsing from time to time under eyelids. If discomfort continues, consult a physician.

**Ingestion:** Not applicable.

**5. Fire and Explosion Data**

In solid form there is no fire or explosion hazard.  
Never put water on molten metal. This will cause explosion.

**Extinguishing Media :** Suspensions of aluminum dust in air may pose a burn or severe explosion hazard, especially in a confined atmosphere. Avoid sparks and prevent electrostatic charges from accumulating. In the case of aluminum fires, use a Class D dry-powder extinguisher. Do not use water, moist sand or halogenated extinguishing media.

**6. Accidental Release Measures**

**Small or large molten spill:** Contain the flow using DRY sand or salt flux as a dam. Do not use shovels or other hand tools to halt the flow of molten aluminum. Allow to cool entirely before handling.

**Solid form (scrap):** Recycle product if possible.

**7. Handling and Storage**

**Storage:** Product should be kept dry. Cracks or cavities, if present, should be pointed downwards to avoid moisture entrapment.

**Handling precautions:** Avoid contact with sharp edges or heated metal. Hot and cold aluminum are not visually different and will not present a warning color change. Exercise caution since metal may be hot.

**8. Exposure Controls and Personal Protection**

**Personal Protection:** Special ventilation should be used to remove finely divided metallic dust in order to eliminate explosion hazards.

Dust concentration in ventilation ducts should be below the lower explosive limit of 40 g/m<sup>3</sup>

Use an approved respirator designed for the hazard where concentrations exceed exposure limits.

**EXPOSURE LIMITS**

Designation	C.A.S.No.	ACGIH TWA/TLV	OSHA PEL TWA
Aluminum	7429-90-5	10 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>
Silicon	7440-21-3	N/A	5 mg/m <sup>3</sup>
Copper	7440-50-8	1.0 mg/m <sup>3</sup>	1.0 mg/m <sup>3</sup>
Zinc oxide	1314-13-2	2 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>
Magnesium oxide	1309-48-4	10 mg/m <sup>3</sup>	15 mg/m <sup>3</sup>
Titanium	7440-32-6	N/A	N/A
Manganese	7439-96-6	0.2 mg/m <sup>3</sup>	N/A

**9. Physical Properties**

<b>Appearance:</b>	Gray to silver. Odorless.	<b>Specific gravity:</b>	2.7
<b>Melting point:</b>	1,050-1,220°F	<b>pH:</b>	N/A
<b>Boiling point:</b>	3,733°F	<b>Flash point:</b>	N/A
<b>Vapor pressure:</b>	N/A	<b>NFPA fire code:</b>	0
<b>Vapor density:</b>	N/A	<b>Oxidizing prop.:</b>	N/A
<b>Water solubility:</b>	N/A	<b>Explosive prop.:</b>	N/A
<b>Evaporation rate:</b>	N/A		

**10. Stability and reactivity**

Metal is stable and non-reactive under normal condition of use, storage and transport.

Molten aluminum may explode on contact with water particularly if water is entrapped.

Heat generation and release of flammable hydrogen gas may occur when fines, chips or dust are mixed with halogenated acids, halogenated solvents, bromates, iodates or ammonium nitrate.

**11. Toxicological Information**

Aluminum in solid form does not present any acute health effects

**ACUTE EFFECTS**

CAS	Designation	LD <sub>50</sub> (oral rat)	LC <sub>50</sub>
7440-21-3	Silicon	3160 mg/kg	unknown
7439-96-6	Manganese	9000 mg/kg	unknown

**12. Ecological Information**

**Ecotoxicity:** Has not been demonstrated using standard OECD protocol.

**Mobility:** Aluminum is not mobile in the environment unless contact is made with an aqueous environment with a pH below 5.5 or above 8.5.

**Biodegradability:** Not relevant for metals.

**13. Disposal Methods**

Reuse or recycle material wherever possible.

Material may be disposed of at an industrial landfill. Dispose of waste in accordance with local, state and federal regulations.

**14. Transport Information**

**CFR 49:** Code of Federal Regulations (USA) Not regulated

**TGDR:** Transport of Dangerous Goods Regs. (Canada) Not regulated

**ADR:** EU agreement for international transport by road. Not regulated

**IMO:** International Maritime Organization Not regulated

**ICAO:** International Civil Aviation Organization Not regulated

**IATA:** International Air transport Association Not regulated

**15. Regulatory Information**

**USA Regulation(s):** **Section 313:** Product may contain trace amounts of the following chemical(s) subject to the requirements of section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA Title III of SARA) and of 40 CFR 372.

Chemical Name	CAS
Copper	7440-50-8

**Canadian Regulation:** WHMIS Classification: D2B Toxic material causing other toxic effects.

**EU Classifications:** Warning Symbol(s): None

Risk Phrase(s): None

Safety Phrase(s): None

**16. Other Information**

The information in this Safety Data Sheet was obtained from sources believed to be reliable, but it is not guaranteed. This information may be used in a manner which is beyond our knowledge and/or control. Therefore, this information is provided for advice only, with no representation of warranty, either express or implied.