

**ALUMINIUM POWDER****0988**

October 2000

CAS No: 7429-90-5  
RTECS No: BD0330000  
UN No: 1396 (uncoated)  
EC No: 013-001-00-6

Aluminum powder  
Al  
Atomic mass: 27.0

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
<b>FIRE</b>	Flammable.	NO contact with acid(s), alcohol, oxidants and water.	Dry sand, special powder. NO water. NO carbon dioxide, foam.
<b>EXPLOSION</b>	Finely dispersed particles form explosive mixtures in air. Risk of fire and explosion on contact with acid(s), alcohol, oxidants and water.	Prevent deposition of dust; closed system, dust explosion-proof electrical equipment and lighting.	

EXPOSURE	PREVENT DISPERSION OF DUST!	
<b>Inhalation</b>	Local exhaust or breathing protection.	Fresh air, rest.
<b>Skin</b>	Protective gloves.	Rinse skin with plenty of water or shower.
<b>Eyes</b>	Safety goggles.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
<b>Ingestion</b>	Do not eat, drink, or smoke during work.	Rinse mouth.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Sweep spilled substance into covered and dry containers. (Extra personal protection: P2 filter respirator for harmful particles).	F Symbol R: 15-17 S: (2-)/7/8-43 UN Hazard Class: 4.3 UN Pack Group: II

EMERGENCY RESPONSE	STORAGE
Transport Emergency Card: TEC (R)-43G14 NFPA Code: H0; F3; R1; (uncoated)	Separated from strong oxidants, strong bases, strong acids and water. See Chemical Dangers. Dry. Well closed.

## IMPORTANT DATA

**Physical State; Appearance**

WHITE TO  
GREY POWDER.

**Physical dangers**

Dust explosion possible if in powder or granular form, mixed with air.

**Chemical dangers**

Reacts with water and alcohols, and violently with oxidants, strong acids, strong bases, and chlorinated hydrocarbons causing fire and explosion hazard.

**Occupational exposure limits**

TLV (as Al): 5 mg/m<sup>3</sup> (as TWA) (pyro powder) (ACGIH 2000).  
TLV: 10 mg/m<sup>3</sup> (as TWA) (metal dust) (ACGIH 2000).

**Routes of exposure**

The substance can be absorbed into the body by inhalation.

**Inhalation risk**

Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly.

**Effects of long-term or repeated exposure**

Lungs may be affected by repeated or prolonged exposure to dust particles. The substance may have effects on the nervous system, resulting in impaired functions.

## PHYSICAL PROPERTIES

Boiling point: 2327°C  
Melting point: 660°C  
Density: 2.7 g/cm<sup>3</sup>

Solubility in water: none, reaction  
Auto-ignition temperature: 590°C

## ENVIRONMENTAL DATA

## NOTES

Other UN number: UN1309 Aluminium powder, coated, Hazard class 4.1, Pack group II.

## ADDITIONAL INFORMATION

## LEGAL NOTICE

Neither the EC nor the IPCS nor any person acting on behalf of the EC or the IPCS is responsible for the use which might be made of this information