

GHS Safety Data Sheet

SDS No. : ALE04PAEG

Date Issued:2014/02/06

Last updated: 2018/09/14

Section 1. Identification of the substance or mixture and of the supplier

1.1 Product Information

Product name: Al Aluminum

Product number:	Purity	Form	Size (μ m)	Product number:	Purity	Form	Size (μ m)
ALE01PB	99%(2N)	powder	≤ 300	ALE05PB	99.9%(3N)	powder	≤ 180
ALE02PB	99%(2N)	powder	≤ 150	ALE06PB	99.9%(3N)	powder	106-180
ALE15PB	99.9%(3N)G	powder	ca.30	ALE07PB	99.9%(3N)	powder	53-106
ALE16PB	99.9%(3N)G	powder	ca.20	ALE13PB	99.99%(4N)	powder	≤ 150
ALE11PB	99.9%(3N)G	powder	ca.3	ALE08PB	99.99%(4N)	powder	≤ 75
ALE19PB	99.7%(2N7)	powder	850-2000	ALE14PB	99.99%(4N)	powder	≤ 45
ALE18PB	99.7%(2N7)	powder	425-850				

1.2 Company Information:

Manufacturer : Kojundo Chemical Laboratory Co., Ltd

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Section 2. Hazards identification

GHS Classification

Health Hazards	Environmental Hazards	Physical Hazards
Specific target organ toxicity, single exposure: Category 1 Specific target organ toxicity, repeated exposure: Category 1	No data available	Substances and mixtures which, in contact with water, emit flammable gases : Category 2

GHS Label: F,C



Pictograms or symbols

Warning word: DANGER

Hazard information

In contact with water releases flammable gas
Causes damage to organs(respiratory system)
Causes damage to organ (respiratory system)
through prolonged or repeated exposure.

Description of precaution

Keep away from any possible contact with water, because of violent reaction and possible flash fire.
 Protect from moisture. Handle under inert gas.
 Avoid breathing dust/mist/gas/fume/vapors/spray. Do not eat, drink or smoke when using this product, and wash hands thoroughly after handling.
 IN CASE OF FIRE: Wear protective gloves/eye protection/face protection. Use «refer to our SDS» to extinguish.
 IF ON SKIN: Wash skin with plenty of soap and water.
 If skin irritation occurs, get medical advice/attention.
 Call a POISON CENTER or doctor/physician if you feel unwell.
 Protect from sunlight. Store in a cool, dry and well-ventilated place.
 Keep container tightly closed.
 Store locked up.
 Dispose of contents/ container in accordance with local/national regulations.

Additional hazard information :

Contact with water may liberate flammable gases.

With respect to additional hazard information, see Section 11.

Section 3. Composition / information on ingredients

Chemical or common name:	Aluminum
Chemical formula:	Al
Single Substance or Compound:	Single substance
Composition:	100%
CAS #:	7429-90-5
RTECS#:	BD0330000
TSCA inventory:	listed
EINECS:	2310723

Section 4. First aid measures

Eye contact:	Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention.
Skin contact:	Promptly flush contaminated skin with soap or mild detergent and water. Contact physician if irritation continues.
Inhalation:	Remove the exposed person immediately and provide fresh air. Get medical attention.
Ingestion:	Rinse mouth and throat with water. Get medical attention immediately.

Section 5. Fire fighting measures

Extinguishing media:	Dry sand, Perlite ,Metal fire extinguishers. DO NOT use water fog or foam, carbon dioxide.
Fire fighting:	Flammable material. Contact with water may liberate flammable gases. Remove containers to safe place if possible. Self-contained breathing apparatus and full protective clothing should be used, if the material is involved in fire.

Section 6. Accidental release measures

Personal Precautions:	Workers should use protective wears to prevent contact with the spilt adhesive and inhalation of its vapor/dusts.
Environmental hazard precautions:	Shut off leak if without risk. Prevent flow out to river, etc. so as not to badly affect.
Method for containment and cleaning up:	DO NOT use water with spills. Indoor leakage: Ventilate as much as possible until the cleaning is completed. Outdoor leakage: Work from the windward and evacuate the leeward crowd. Gather up, pack in closed container as much as possible. Carefully collect remnant and move to a safe place.

Section 7. Handling and storage

Precautions to be taken in handling:

Safe handling: Use protective wears and local ventilation equipment, if inhalation or skin contact is foreseen.
Avoid prolonged or repeated exposure.
Air and moisture sensitive. Light sensitive.
Keep away from heat, sparks and naked flame.
Electrically ground all equipment when handling this material and use only non-sparking tools.

Precautions to be taken in storage:

General precautions: Store the material in a sealed container.
Store in a cool, dry, well ventilated and dark place away from incompatible materials.
Keep away from water, moisture and source of heat.
Keep container or bottle tightly closed.

Section 8. Exposure controls / personal protection

Exposure guideline: ACGIH (2013): TLV-TWA = 1 mg/m³ (Respirable particulate)
OSHA (2006): PEL-TWA = 15 mg/m³ (Total dust)
= 5 mg/m³ (Respirable fraction)

Facility measures: Local ventilation of closed work room or total proper ventilation to prevent inhalation.

Protective ware: Wear appropriate NIOSH/MSHA-approved respirator, safety goggles, impervious gloves, protective wear, protective boots.

Section 9. Physical and chemical properties

Color and Form: Gray powder, odorless.

Chemical formula: Al

Atomic weight: 26.98

Melting point: 660.32 °C

Boiling point: 2467 °C

Density: 2.6989 g/cm³

Solubility: Water: Insoluble (cold water), Reacts and forms hydrogen (hot water).
Dissoluble: Inorganic acids except nitric acid, bases.

Flammable: Non-combustible substance
Combustible substance ($\leq 3 \mu\text{m}$)

Oxidation: None

Section 10. Stability and reactivity

Stability: Stable in closed container.

Reactivity

Incompatibility: Water, acids, oxidizing agent, acid chlorides, halogens, phosphorus, sulfur, selenium.

Condition to avoid: Air, moisture.

Hazardous decomposition products.: Aluminum oxides

Section 11. Toxicological information

Acute toxicity: GHS ; No data available

Skin corrosive / irritation: GHS ; No data available
 Serious eyes damage / eye irritation: GHS ; No data available
 Respiratory sensitization: GHS ; No data available
 Skin sensitization: GHS ; No data available
 Germ cell mutagenicity: GHS ; No data available
 Carcinogenicity: GHS ; No data available

Chemical Name	ACGIH (2013)	IARC (2017)	NTP (2016)
Aluminum	A4	–	–

ACGIH(2013) A4 Not classifiable as a human carcinogen.

Reproductive toxicity: GHS ; No data available
 Specific target organ toxicity
 – single exposure: GHS ; Category 1
 Causes damage to organs. (respiratory system)
 Specific target organ toxicity
 – repeated exposure: GHS ; Category 1
 Causes damage to organs (Lung) through prolonged or repeated exposure.
 Aspiration hazard: GHS ; No data available

Section 12. Ecological information

Ecotoxicity:
 Hazards to the aquatic environment
 – acute toxicity: GHS ; No data available
 – chronic toxicity: GHS ; No data available
 Hazardous to the ozone layer: GHS ; No data available
 No Freon or Halon
 Fish toxicity: No data available
 Degradability: No data available
 Bioaccumulative potential: No data available
 Mobility in soil: No data available

Section 13. Disposal considerations

Disposal method: User of the product should contract with the local government or licensed 'Industrial Waste Haulers' for disposal of waste.

Section 14. Transport information

UN number: 1396
 IATA shipping name: Aluminium powder, uncoated
 IATA hazard class: Class 4.3 (substances which, in contact with water, emit flammable gases)
 IATA packing group: II
 HS code: 7603.10
 Marine pollution: None

Section 15. Regulatory information

TSCA inventory : listed.
 Please refer to any other local / national measures that may be relevant.

Section 16. Other information

The information described above is believed to be correct. However, Kojundo Chemical Lab. makes no representation, warranty nor guarantee of any kind with respect to the information on this data sheet or any use of the product based upon this information.