

GHS Safety Data Sheet

SDS No. : ALO01PAEG

Date Issued : 2004/10/20

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

Product Information

Product name: α -Al₂O₃ α -Alumina

Product number:	Purity	Form	Size or Shape
ALO13PB	99.9%(3N)	powder	ca.1 μ m
ALO14PB	99.99%(4N)	powder	ca.1 μ m
ALO11PB	4Nup	powder	ca.1 μ m
ALO12PB	4Nup	powder	ca.0.3 μ m
ALO02GB	3N	grains	ca.2mm, crushing sintered
ALO03GB	4N	grains	ca.2mm, crushing sintered
ALO09GB	99.999%(5N)	grains	ca.2mm, crushing sintered
ALO03RB	4N	tablet	ϕ 10 \times t5 mm
ALO04RB	4N	tablet	ϕ 20 \times t5 mm
ALO16_ALOT4113	4N	target	ϕ 101.6 \times 5 mm
ALO16_ALOT4144	4N	target	ϕ 152.4 \times 5 mm
—	4N	target	Various sizes

Company Information:

Manufacturer : Kojundo Chemical Laboratory Co., Ltd.

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Recommended uses and restrictions on use: For research purposes

Section 2. Hazards identification

GHS Classification

Health Hazards	Environmental Hazards	Physical Hazards
Specific target organ toxicity, single exposure : Category 3 Specific target organ toxicity, repeated exposure : Category 1	No data available	Flammable solids : Not classified Pyrophoric solids : Not classified Self-heating substances and mixtures : Not classified Substances and mixtures which, in contact with water, emit flammable gases : Not classified

GHS Label: C, W



Pictograms or symbols:

Warning word: **DANGER**

Hazard information	Description of precaution
May cause respiratory irritation May cause damage to organs (lung) through prolonged or repeated exposure.	Avoid breathing dust/mist/gas/fume/vapors/spray. Do not eat, drink or smoke when using this product, and wash hands thoroughly after handling. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.



High Purity Materials

KOJUNDO CHEMICAL LABORATORY CO.,LTD.

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.

Section 3. Composition / information on ingredients

Chemical or common name: Aluminum oxide(α)
Chemical formula: Al₂O₃
Single Substance or Compound: Single substance
Composition: 100%
CAS #: 1344-28-1
RTECS#: BD1200000
TSCA inventory : listed
EINECS: 2156916

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.

Section5. Fire fighting measures

Extinguishing media: The product is not combustible.
Use media appropriate for surrounding fire.
Fire fighting: 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:
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.



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.

Section 8. Exposure controls / personal protection

Chemical Name	ACGIH(2019) TLV-TWA mg/m ³	OSHA(2006) PEL-TWA mg/m ³
Aluminum insoluble compounds	1(R)	—
α -Alumina	—	5(R),15(T)

R: Respirable particulate T: Total dust

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, protective gloves.

Section 9. Physical and chemical properties

Color and Form: White solid, odorless
Chemical formula: Al₂O₃
Formula weight: 102.0
Melting point: 2054°C
Boiling point: 2980±60°C
Specific gravity: 3.99g/cm³
Solubility in water: Insoluble
Flammability: Non-combustible substance
Oxidation: None

Section 10. Stability and reactivity

Stability: Stable in closed container under room temperature.

Reactivity

Condition to avoid: No data available

Incompatibility: Strong oxidizing agents, chlorine trifluoride, ethylene oxide, vinyl acetate, sodium nitrate

Section 11. Toxicological information

Acute toxicity(Oral): GHS : Not classified
Oral rat LD₅₀ > 5000 mg/kg (IUCLID(2000))
Skin corrosive / irritation: GHS : No data available
Serious eye damage / 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 : Not classified
Carcinogenicity:

Chemical Name	ACGIH(2019)	IARC(2018)	NTP(2016)
Cobalt compounds	A4	—	—

ACGIH A4 Not classifiable as a Human Carcinogen

Reproductive toxicity: GHS : No data available



High Purity Materials

KOJUNDO CHEMICAL LABORATORY CO.,LTD.

Specific target organ toxicity

- single exposure: GHS : Category 3; May cause respiratory irritation.
- repeated exposure: GHS : Category 1; Cause damage to organs through prolonged or repeated exposure (lung).

Aspiration hazard: GHS : No data available

Section 12. Ecological information

Ecotoxicity:

Hazardous 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 classification: Not hazardous

UN number: None

HS code: 2818.20

Marine pollution: None

Precautions: Container should be transported in a secure position, in a well-ventilated vehicle.

Section 15. Regulatory information

TSCA inventory: Listed.

Please refer to any other local / national measures that may be relevant.

Section 16. Other information

This SDS is for provision of information, and it does not represent a guarantee the properties or safeties of the product.

The information herein is based on the references we could obtained and the present state of our knowledge, however, this SDS does not always cover all information about the product. Some new information or amendments may be added afterwards.

Prior to use, please investigate the laws and regulations of the organization, area and country where the product is to be used. The information is intended to ordinary usage, in case of special handling, sufficient care should be taken.

