

GHS Material Safety Data Sheet

MSDS No. : ALO03PAEG

Date Issued: 2011/05/24

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

1.1 Product Information

Product name: -Al₂O₃ -Aluminum() oxide

Product number:	Purity	Form	Size or Shape
ALO08PB	99.9% (3N)	powder	2-3 μm
ALO09PB	99.99% (4N)	powder	2-3 μm

1.2 Company Information:

Manufacturer : Kojundo Chemical Laboratory Co., Ltd
 1-28, 5-chome, Chiyoda, Sakado-shi, Saitama Japan 350-0284
 Phone: +81-49-284-1511 Fax: +81-49-284-1351
 Emergency Phone : +81-49-284-1511

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	Not classified.

GHS Label: CW



Pictograms or symbols

Warning word: DANGER

Hazard information

May cause respiratory irritation.
Causes damage to organ (Lung : inhalation)
through prolonged or repeated exposure.

Description of precaution

Avoid breathing dust/ fume/ vapours.
 Do not eat, drink or smoke when using this product, and wash hands thoroughly after handling.
 Use only outdoors or in well-ventilated area.
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 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.
 Dispose of contents/ container in accordance with local/ national regulations.

Additional hazard information :

With respect to additional hazard information, see Section 11.

Section 3. Composition / information on ingredients

Chemical or common name:	Aluminum oxide ()
Chemical formula:	Al ₂ O ₃
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.

Section 5. Fire fighting measures

Extinguishing media:	This product cannot catch fire. Use media appropriate for surrounding fire.
Fire fighting:	The product is nonflammable.

Section 6. Accidental release measures

Personal Precautions:	Workers should use protective wears to prevent contact with the spilt adhesive and inhalation of its vapor.
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.
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Precautions to be taken in storage:

General precautions:	Store in a cool, dry place away from incompatible materials.
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Section 8. Exposure controls / personal protection

Exposure guideline:	ACGIH (2008): Aluminum and insoluble compounds TLV-TWA 1 mg/m ³ (Resprable particulate)
Facility measures:	Local ventilation of closed work room or total proper ventilation to prevent inhalation.
Protective ware:	Wear appropriate NIOSH/MSHA-approved respirator, air-supplied respirator, safety goggles, face shields, protective gloves, protective clothing, apron, including boots.

Section 9. Physical and chemical properties

Color and Form:	White solid, odorless.
Chemical formula:	Al ₂ O ₃
Atomic weight:	102.0
Melting point:	2054
Boiling point:	2980 ± 60
Density:	3.97 g/cm ³
Water solubility	Insoluble
Flammable:	non-flammable substance
Oxidation:	None

Section 10. Stability and reactivity

Stability:	Stable in closed container.
Reactivity	
Incompatibility:	Strong oxidizing agents.
Condition to avoid:	No data available

Section 11. Toxicological information

Acute toxicity:	GHS(Oral) ; Not classified.; Falls below the lowest level. Oral rat LD ₅₀ > 5000mg/kg (IUCLID(2000))
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 ; Not classified.; Falls below the lowest level. Carcinogenicity:

Chemical Name	ACGIH (2008)	IARC (2009)	NTP (2005)
Aluminum oxide	A4	—	—

ACGIH(2008) A4 Not classifiable as a human carcinogen.

Reproductive toxicity:	GHS ; No data available
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Specific target organ toxicity —single exposure:	GHS ; Category 3 May cause respiratory irritation.
Specific target organ toxicity —repeated exposure:	GHS ; Category 1 Causes damage to organ (Lung; Inhalation) 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
Fish toxicity:	No data available
Degradability:	No data available
Bioaccumulative potential:	Al biological half-life 550day, Rate of absorption Oral=0.1 Respiratory tract=0.3
Ozone layer:	No Freon or Halon

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.
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Section 14. Transport information

UN classification:	Non-hazards
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

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.