

## GHS Safety Data Sheet

SDS No. : YYF02PAEG

Date Issued:2017/11/07

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

#### 1.1 Product Information

**Product name: Y<sub>3</sub>Al<sub>5</sub>O<sub>12</sub>(YAG) Yttrium aluminum oxide**

Product number	Purity	Form	Size (mm)
YYF05PB	99.95%(3N5)	powder	—
—	99.9%(3N)	tablet/tablet	Various size

#### 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
No data available	No data available	<b>Flammable solids : Not classified</b> <b>Pyrophoric solids : Not classified</b> <b>Self-heating substances and mixtures : Not classified</b> <b>Substances and mixtures which, in contact with water, emit flammable gases : Not classified</b>

#### GHS Label:

Pictograms or symbols          Not applicable

**Warning word:** Not applicable

Hazard information	Description of precaution
Not applicable	Wear protective gloves/protective clothing/eye protection/respiratory protection/face protection during handling. Avoid release to the environment and collect spillage. Protect from sunlight. Store in a cool, dry and well-ventilated place. Keep container tightly closed.

**Additional hazard information :** With respect to additional hazard information, see Section 11.

### Section 3. Composition / information on ingredients

Chemical or common name: Aluminum yttrium oxide  
 Chemical formula: Y<sub>3</sub>Al<sub>5</sub>O<sub>12</sub>  
 Synonyms: Yttrium aluminate, Pentaaluminum tryttrium dodecaoxide  
 Single Substance or Compound: Single substance  
 Composition: 100%  
 CAS #: 12005-21-9  
 RTECS#: not listed  
 TSCA inventory: listed  
 EINECS: 2344658

#### 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:	The product is not flammable. 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 spilled adhesive and inhalation of its dust/ fume.
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. Keep container or bottle tightly closed.
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#### Section 8. Exposure controls / personal protection

Exposure guideline:	ACGIH (2013) : Aluminum insoluble compound ; TLV-TWA 1 mg/m <sup>3</sup> (R) Yttrium compound (as Y) ; TLV-TWA 1 mg/m <sup>3</sup> R: Respirable fraction OSHA (2006) : No data available
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:	Green cubic solid, odorless.
Chemical formula:	Y <sub>3</sub> Al <sub>5</sub> O <sub>12</sub>
Atomic weight:	593.6
Melting point:	1970 °C
Density:	4.55 g/cm <sup>3</sup>
Solubility	Water: Insoluble
Flammable:	Non-flammable substance
Oxidation:	None

## Section 10. Stability and reactivity

Stability:	Stable in sealed container at room temperature.
Reactivity	
Incompatibility:	No data available
Condition to avoid:	No data available

## 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
Reproductive toxicity:	GHS ; No data available
Specific target organ toxicity	
—single exposure:	GHS ; No data available
Specific target organ toxicity	
—repeated exposure:	GHS ; No data available
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.
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**Section 14. Transport information**

UN classification: Non-hazards  
UN number: None  
HS code: 2846.90  
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.