

# SAFETY DATA SHEET

## ALUMINIUM ALLOY POWDER SCALMA40B5

Date of issue March 4, 2019

Date of revision

### 1. Identification

Product Name : ALUMINIUM ALLOY POWDER SCALMA40B5  
Name of manufacture : TOYO ALUMINIUM K.K  
Address : MIDOSUJI DAIWA BLDG, 6-8, KYUTAROMACHI 3-CHOME, CHUO-KU, OSAKA, 541-0056, JAPAN  
Telephone Number : 81-66271-3154  
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Emergency : TOYO ALUMINIUM K.K HINO WORKS  
/[ Address ] : 341-14,HIGASHIYAMA, OHTANI, HINO-CHO, GAMO-GUN, SHIGA, JAPAN. 529-1608  
/[ Telephone Number ] : 81-748-53-1151  
/[ FAX Number ] : 81-748-53-0316  
Name of section : HINO Quality Assurance Section  
Recommended use : Additive Manufacturing

### 2. Hazard identification

#### GHS Classification

Physical Hazards : Not Classification Standard  
Health Hazards : Acute toxicity – Oral Category 5  
: Reproductive toxicity Category 2  
: Specific target organ systemic toxicity (single) Not classified  
: Specific target organ systemic toxicity (repeated) Category 1  
Environmental Hazards : Hazardous to the aquatic environment (chronic) Category 4  
※Hazards that aren't written as the above are "Not classified" or "Not applicable".

#### GHS Label elements

Pictogram



Signal word : **Danger**  
Hazard statement : H303 May be harmful if swallowed  
: H361 Suspected of damage fertility or the unborn child  
: H372 Causes damage to organs through prolonged or repeated exposure  
: H413 May cause long lasting harmful effects to aquatic life  
Precautionary statement : Refer to [7.Handling and storage], [13.Disposal considerations].

### 3. Composition / information on ingredients

Classification of the substance or mixture : Mixture

Chemical Name	Composition (%)	CAS No.	REACH Registration No.
Aluminium	Balance	7429-90-5	01-2119529243-45-XXXX
Manganese	0.2-0.7	7439-96-5	—
Magnesium	4.5-4.9	7439-95-4	—
Scandium	0.68-0.78	7440-20-2	—
Zirconium	0.2-0.4	7440-67-7	—

### 4. First-aid measures

- IF INHALED** : In case of inhalation of small amount of powder, wash nostrils and throat with clear water.  
In case of inhalation of large amount of powder, call a physician immediately.
- IF ON SKIN** : Remove contaminated clothing and wash skin with soap and water.
- IF IN EYES** : Flush eyes with clear water for a few minutes or until irritation subsides.  
Call a physician if irritation persists.
- IF SWALLOWED** : Do not induce vomiting. Call a physician immediately.

### 5. Fire-fighting measures

- Extinguishing Media** : Powder, Dry sand, Soda-ash, Lime
- Prohibited extinguishing media** : Water, Foam
- Unusual fire & explosion hazards** : Fear that ignites by heat, spark, and flame.  
: Fear that ignites again after extinguishing fire  
: Fear to generate gas of stimulation, toxicity or causticity due to a fire.
- Special fire fighting procedures** : Never extinguish fire by pouring water.  
: Do not stir the powder or generate dust as agitation of the powder may accelerate combustion.  
Move the aluminium powder after fire extinction after confirming the internal temperature has fallen to the normal level, and there is no rise in heat for at least 24 hours.  
: Extinguish fire by oxygen suffocation. Cover the burning area with fire-proof cloth so as to cut off flying dust.  
Then apply dry sand or mica powder over the source of burning to cut off air supply.  
: Do not use water so that foam and Halogen extinguishing might react with the aluminium powder.
- Worker's protection** : Wear complete protective wear (heatproof) including an appropriate compressed air open-circuit SCBA when you work for extinguishing fire.

### 6. Accidental release measures

- Personal precautions, Protect equipment and Emergency procedures** : In an indoor case, fully ventilate until leakage has stopped, and wear protective equipment during the work.  
Follow "8. Exposure controls/personal protection"
- Environmental precautions** : In an indoor case, fully ventilate until processing finishes.
- Methods and materials for Containment and cleaning up** : Avoiding raising dust, sweep it up, and keep it in an airtight container  
Follow "13. Disposal considerations"
- Preventive measures of second disaster** : Remove all sources of ignition promptly.  
Do not apply water on leakage and the container.



## 10. Stability and reactivity

Stability	: Stable under normal use. However, there is possibility of dust explosion under certain conditions.
Possibility of Hazardous reactions	: May react with water, acid, alcohol, etc. to generate hydrogen gas and heat.
Conditions to avoid	: Contact with Water, Moisture, Acid, Alkali
Incompatible materials	: Oxidant, Hydrochloric acid, Alcohol ...etc

## 11. Toxicological information

Acute toxicity – Oral	: Based on classification criterion of mixtures. $\nearrow$ ATE=3,890mg/kg =Category5
Acute toxicity – Skin	: No Data
Acute toxicity – Inhalation (Gas)	: No Data
Acute toxicity – Inhalation (Vapor)	: No Data
Skin corrosion/Irritation	: No Data
Serious eye damage/Eye irritation	: No Data
Respiratory sensitization	: No Data
Skin sensitization	: No Data
Germ cell mutagenicity	: No Data
Carcinogenicity	: No Data
Reproductive toxicity	: Based on classification criterion of mixtures. =Category2
Specific target organ systemic toxicity (single)	: No Data
Specific target organ systemic toxicity (repeated)	: Based on classification criterion of mixtures. =Category1
Aspiration hazard	: No Data

## 12. Ecological information

Ecotoxicity	: No Data
Residual/Degradability	: No Data
Bioaccumulation potential	: No Data
Hazardousness in soil	: No Data
Hazardousness on the ozone layer	: No Data
Aquatic toxicity (acute)	: No Data
Aquatic toxicity (chronic)	: Based on classification criterion of mixtures. =Category4

## 13. Disposal considerations

Remainder waste	: Comply with laws and regulations of local and federal governments for disposal.
Pollution container and Packing	: Clean the container or perform suitable disposal in accordance with the standard of related laws and regulations of local and federal governments. : Empty container, must be disposed of the content completely.

## 14. Transport information

### **【International transport information】**

UN number : Not Restricted  
UN classification : Not Restricted  
Marine pollutant : Not Restricted

**【Special precaution】**

- : Stack up containers securely so as not to fall. Containers may be damaged.
- : Cover the container to prevent direct sun rays and penetration of the rain.
- : Carry products so that container does not cause violent friction or vibration.
- : Follow all regulations of concerned area the product pass through.
- : Report in the nearest fire fighting organization when aluminum powder during transport leak considerably. And take steps of “Section 5” at the same time.

## 15. Regulatory information

Ensure this material in compliance with federal and local regulations.

## 16. Other information

Reference	: Preparation guideline of Material Safety Data Sheet	Japan Chemical industry Association
	: Guidebook of Product Liability Act	Japan Paint Manufacturers Association
	: Statute book of chemicals	The Chemical Daily Co., Ltd.
	: 16615 Chemicals	The Chemical Daily Co., Ltd.
	: Information of GHS models	Japan Advanced Information Center of Safety and Health
	: Quick understanding of business for MSDS · Label	Japan Environmental Management Association for Industry

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