

EC safety data sheet



Product no.: PCZ7410A

Version: 1 / GB

Status: 18.1.2006

1.) Identification of the substance/preparation and company

Product details

Trade name

ALUMINIUM POWDER PCZ7410A

Identification of the manufacturer / supplier

Address

Toyo Aluminium K.K.
MIDOSUJI DAIWA BLDG,6-8,KYUTAROMACHI 3-CHOME,
CHUO-KU OSAKA ,541-0056,JAPAN

Telephone no. +81-745-69-3091

Fax no. +81-745-69-6972

Information provided by / telephone

+81-745-69-3091

Emergency telephone number

For medical advice:

+33 (0)1 40 05 48 48 (Anti Poison Center Paris)

+81-745-69-3091

2.) Composition / information on ingredients

Chemical characterization

Aluminium powder pasted in solvents

Hazardous ingredients

ALUMINIUM POWDER (STABILIZED)

EC no.	231-072-3	Index no.	013-002-00-1	CAS no.	7429-90-5
Concentration	> 70	< 85	%-b.w.		
Classification	F; R15 R10				
Hazard symbols	F	R phrases	10-15		

MEDIUM ALIPHATIC SOLVENT

EC no.	265-191-7	Index no.	649-405-00-X	CAS no.	64742-88-7
Concentration	> 0	< 1	%-b.w.		
Classification	R10 Xn; R65	Xi; R37 N; R51/53	R67 R66		
Hazard symbols	Xn, N	R phrases	10-37-51/53-65-66-67		

LIGHT AROMATIC SOLVENT

EC no.	265-199-0	Index no.	649-356-00-4	CAS no.	64742-95-6
Concentration	> 0	< 1	%-b.w.		
Classification	R10 Xn; R65	Xi; R37 N; R51/53	R67 R66		
Hazard symbols	Xn, N	R phrases	10-37-51/53-65-66-67		

ACRYLIC ACID-STYRENE COPOLYMER

EC no.	NC	Index no.	NC	CAS no.	25085-34-1
Concentration	> 15	< 30	%-b.w.		
Classification	NC				
Hazard symbols	NC	R phrases			

3.) Hazards identification

Classification

F; R11	Highly flammable.
N; R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R67	Vapours may cause drowsiness and dizziness.
R66	Repeated exposure may cause skin dryness or cracking.

Hazard symbols

F	Highly flammable
N	Dangerous for the environment

R phrases

11	Highly flammable.
51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
66	Repeated exposure may cause skin dryness or cracking.
67	Vapours may cause drowsiness and dizziness.



4.) First aid measures

General information

In case of persisting adverse effects consult a physician. Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing.

After inhalation

Remove affected person from the immediate area. Ensure supply of fresh air.

After skin contact

Wash off immediately with soap and water.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). Eye treatment by an oculist.

After ingestion

Rinse mouth thoroughly with water. Do not induce vomiting. Summon a doctor immediately. Never give anything by mouth to an unconscious person.

5.) Fire-fighting measures

Suitable extinguishing media

Dry sand; Metal fire powders

Extinguishing media that must not be used for safety reasons

Water; Carbon dioxide; Dry powder; Foam; Halones

Special exposure hazards arising from the substance or preparation itself, its combustion products or from resulting gases

In case of contact with acidic or alkaline (basic) media as well as water, aluminium powder will react under hydrogen formation.

Special protective equipment for firefighting

Use self-contained breathing apparatus. Wear protective clothing.

Other information

Do not break burning matter - danger of explosion!

6.) Accidental release measures

Personal precautions

Refer to protective measures listed in sections 7 and 8. Keep away sources of ignition.

Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

Methods for cleaning up/taking up

Pick up mechanically. Protect from water. When picked up, treat material as prescribed under heading "Disposal considerations".

Additional informations (chapter 6)

Do not collect residues using a non explosion-proof vacuum cleaner – Explosion hazard!

7.) Handling and storage

Handling

Advice on safe handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Avoid the formation and deposition of dust. Product inherent handling risks must be minimised taking the appropriate measures for protection and preventive actions. The working process should be designed to rule out the release of hazardous substances or skin contact as far it is possible by the by the state of the art

Advice on protection against fire and explosion

Vapours can form an explosive mixture with air. Take precautionary measures against static charges. Keep away from sources of heat and ignition. Use explosion-proof equipment/fittings and non-sparking tools.

Storage

Requirements for storage rooms and vessels

Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep only in the original container.

Advice on storage assembly

Do not store together with:

Oxidizing agents

Acids

Alkalies

Nitrates

Alcohols

Halogenated hydrocarbons

Halogens

Keep away from water.

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Further information on storage conditions

Keep container tightly closed in a cool, well-ventilated place. Keep dry. Humidity penetration (water) into closed containers may lead to pressure increase and bursting of the container.

8.) Exposure controls / personal protection

Exposure limit values

ALUMINIUM POWDER (STABILIZED)

CAS no. 7429-90-5
EC no. 231-072-3

Occupational Exposure Standards (OESs) / EH40

Aluminium metal
total inhalable dust
TWA 10 mg/m³

Occupational Exposure Standards (OESs) / EH40

Aluminium metal
total respirable dust
TWA 4 mg/m³

MEDIUM ALIPHATIC SOLVENT

CAS no. 64742-88-7
EC no. 265-191-7

2000/39/EWG

Medium aliphatic solvent
TWA 100 mg/m³

LIGHT AROMATIC SOLVENT

CAS no. 64742-95-6
EC no. 265-199-0

2000/39/EWG

Light aromatic solvent
TWA 25 mg/m³

Personal protective equipment

Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of dust, aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

Hand protection

Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective glove should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Eye protection

Safety glasses with side protection shield (EN 166)

Skin protection

Clothing as usual in the chemical industry.

General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Avoid contact with eyes and skin. Do not inhale vapours. Have eye wash fountain available. Have emergency shower available.

9.) Physical and chemical properties

General information

Form powder
Colour silver-grey
Odour solvent-like

Important health, safety and environmental information

Changes in physical state

Type	Melting point		
Value	appr.	660	°C
Reference substance	aluminium		
Type	Boiling temperature		
Value		2467	°C
Reference substance	aluminium		

Flash point

Value	>	40-45	°C
Reference substance	Medium aliphatic solvent		

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Value	>	46	°C
Reference substance		Light aromatic solvent	
Explosion limits			
Upper explosion limit		4.9	% vol
Reference substance		Medium aliphatic solvent	
Lower explosion limit		0.8	% vol
Reference substance		Medium aliphatic solvent	
Upper explosion limit		6.0	% vol
Reference substance		Light aromatic solvent	
Lower explosion limit		1.0	% vol
Reference substance		Light aromatic solvent	
Vapour pressure			
Value	Approx	5	mmHg
Reference temperature		20	°C
Reference substance		Mineral Spirits	
Density			
Value		1.9-2.5	g/cm ³
Source		calculated value	
Reference substance		Product	
Reference temperature		20	°C
Solubility in water			
Remarks		insoluble	
Flammability:			
Flammability :		Highly flammable according to method EC A.10 (flammability, solids)	

10.) Stability and reactivity

Conditions to avoid

Moisture; Heat; Exothermal reactions are possible in the event of contact with incompatible substances.

Materials to avoid

Oxidizing agents; Acids; Alkalies; Nitrates; Alcohols; Halogenated hydrocarbons; Halogens; Water

Hazardous decomposition products

In case of contact with acidic or alkaline (basic) media as well as water, aluminium powder will react under hydrogen formation.

11.) Toxicological information

Acute toxicity

Acute oral toxicity

LD50	>	5000	mg/kg
Species		rat	
Reference substance		Mineral Spirits	

Effects after repeated or prolonged exposition (subacute, subchronic, chronic)

Mutagenicity

Remarks No experimental information on genotoxicity available.

Reproduction toxicity

Remarks No experimental information on reproduction toxic effects available.

Carcinogenicity

Remarks No experimental information on carcinogenic effects available.

Experience in practice

Repeated and prolonged skin contact may cause removal of natural fat from the skin and irritation of the skin.
Inhalation of solvent vapours in higher concentration may lead to nausea, headache, drowsiness and dizziness.

Other information (chapter 11.)

Product specific toxicological data are not known.

12.) Ecological information

General information / ecology

Ecological data are not available.
Do not discharge product unmonitored into the environment.

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13.) Disposal considerations

Product

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

14.) Transport information

Land transport ADR/RID

Class	4.1	Classification code	F3
Packaging group	II		
Hazard id. no.	40		
Label	4.1		
UN number	1309		
Technical name	ALUMINIUM POWDER, COATED		
Danger releasing substance	-		

Marine transport IMDG

Class	4.1
Packaging group	II
UN number	1309
Proper shipping name	ALUMINIUM POWDER, COATED
Danger releasing substance	-
EmS	F-G,S-G
MARPOL	-
Label	4.1

Air transport ICAO/IATA

Class	4.1
Packaging group	II
UN number	1309
Proper shipping name	ALUMINIUM POWDER, COATED
Danger releasing substance	-
Label	4.1

15.) Regulatory information

Labelling in accordance with EC directives

The product is classified and labelled in accordance with EC Directive 1999/45/EC.

Hazard symbols

F Highly flammable

R phrases

11 Highly flammable.
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
66 Repeated exposure may cause skin dryness or cracking.
67 Vapours may cause drowsiness and dizziness.

S phrases

7/8 Keep container tightly closed and dry.
43.10 In case of fire, use dry sand or metal fire powder. --- Never use water.
61 Avoid release to the environment. Refer to special instructions / Safety data sheets.

Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances

Remarks Annex I, part 1 + 2: not mentioned. With regard to possibly appropriate decomposition products see Chapter 10.

16.) Other information

Sources of key data used to compile the data sheet:

EC Directive 67/548/EC resp. 99/45/EC as amended in each case.
EC Directive 2001/58/EC as amended in each case.
EC Directive 2000/39/EC as amended in each case.
National Threshold Limit Values of the corresponding countries as amended in each case.
Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.
The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter.

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Relevant R-phrases (chapter 2):

10	Flammable.
15	Contact with water liberates extremely flammable gases.
20	Harmful by inhalation.
36/37/38	Irritating to eyes, respiratory system and skin.
37	Irritating to respiratory system.
51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
65	Harmful: may cause lung damage if swallowed.
66	Repeated exposure may cause skin dryness or cracking.
67	Vapours may cause drowsiness and dizziness.

This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.