according to Regulation (EC) No. 1907/2006



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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : STANDART Porenbeton RO 400 Aluminium Powder

Product code : 040242F80

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the : Colouring agent

Substance/Mixture Colouring agents, pigments

1.3 Details of the supplier of the safety data sheet

Company :

E-mail address of person responsible for the SDS

: msds.eckart@altana.com

1.4 Emergency telephone number

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable solids, Category 1 H228: Flammable solid.

Information concerning particular hazards for human and environment:

: Please refer to our website for further important safety instructions for handling aluminium powder:

http://www.eckart.net/fileadmin/eckart/Service/GDA

_Alupulver_Safety_engl.pdf

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms



Signal word : Danger

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Hazard statements : H228 Flammable solid.

Precautionary statements : Prevention:

P210 Keep away from heat, hot surfaces, sparks,

open flames and other ignition sources. No

smoking.

P240 Ground/bond container and receiving

equipment.

P241 Use explosion-proof electrical/ ventilating/

lighting equipment.

P280 Wear protective gloves/ eye protection/ face

protection.

Response:

P370 + P378 In case of fire: Use for extinction: Special

powder for metal fires.

P370 + P378 In case of fire: Use for extinction: Dry sand.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Substance name : aluminium powder (stabilised)

EC-No. : 231-072-3

Chemical nature : Pigment

Hazardous components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification REGULATION (EC) No 1272/2008	Concentration (% w/w)
aluminium powder (stabilised)	7429-90-5 () 231-072-3 013-002-00-1	Flam. Sol. 1; H228	>= 50 - <= 100
	01-2119529243-45		

For explanation of abbreviations see section 16.

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SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Move the victim to fresh air.

Move out of dangerous area.

If inhaled : If unconscious, place in recovery position and seek medical

advice

If symptoms persist, call a physician.

In case of skin contact : Wash off immediately with soap and plenty of water.

If on skin, rinse well with water. If on clothes, remove clothes.

In case of eye contact : Flush eyes with water as a precaution.

Remove contact lenses.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

None known.

4.3 Indication of any immediate medical attention and special treatment needed

This information is not available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Dry sand

Special powder against metal fire

Unsuitable extinguishing

media

ABC powder

Carbon dioxide (CO2)

Water Foam

5.2 Special hazards arising from the substance or mixture

Specific hazards during

firefighting

Contact with water liberates extremely flammable gas

(hydrogen).

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5.3 Advice for firefighters

Special protective equipment:

for firefighters

Wear self-contained breathing apparatus for firefighting if

necessary.

Further information : Standard procedure for chemical fires.

Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.

Evacuate personnel to safe areas.

Avoid dust formation.

Remove all sources of ignition.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and lakes or drains inform

respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Use mechanical handling equipment.

Do not use a vacuum cleaner.

Do not flush with water.

Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid creating dust.

Routine housekeeping should be instituted to ensure that

dusts do not accumulate on surfaces.

Store away from heat.

For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the

application area.

Dispose of rinse water in accordance with local and national

regulations.

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Advice on protection against

fire and explosion

Use explosion-proof equipment. During processing, dust may form explosive mixture in air. Take measures to prevent the build up of electrostatic charge. When transferring from one container to another apply earthing measures and use conductive hose material.

Keep away from open flames, hot surfaces and sources of

ignition.

Wash hands before breaks and at the end of workday. Hygiene measures

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Earthing of containers and apparatuses is essential. Reaction with water liberates extremely flammable gas (hydrogen) Use explosion-proof equipment. Store in original container. Keep containers tightly closed in a cool, well-ventilated place. Keep away from sources of ignition - No smoking. Keep container closed when not in use.

No smoking. Keep container tightly closed in a dry and wellventilated place. Electrical installations / working materials must comply with the technological safety standards.

Further information on storage conditions

Protect from humidity and water.

Advice on common storage

Do not store together with oxidizing and self-igniting products.

Never allow product to get in contact with water during

storage.

Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

Further information on

storage stability

Keep in a dry place. No decomposition if stored and applied

as directed.

7.3 Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form	Control parameters	Basis
		of exposure)		
aluminium powder (stabilised)	7429-90-5	TWA (Inhalable)	10 mg/m3	GB EH40
Further information	The COSHH definition of a substance hazardous to health includes dust of			
	any kind when present at a concentration in air equal to or greater than 10			

5 / 15

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Further information	mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed to dust above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limits., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used. TWA (Respirable 4 mg/m3 GB EH40 Fraction) The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed to dust above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limits., Where no specific short-term exposure limit is listed, a figure three		
	times the long-term exposure limit should be used. TWA (inhalable 10 mg/m3 GB EH40		
Further information	For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is		
Further information	dust)		
Further information	For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/4 General methods for sampling and gravimetric analysis or respirable, thoracic and inhalable aerosols., The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of		

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inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed to dust above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limits., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system, and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'., Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/4., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
aluminium powder (stabilised)	Workers	Inhalation	Long-term local effects	3.72 mg/m3
	Consumers	Oral	Long-term systemic effects	3.95 mg/kg
	Workers	Inhalation	Long-term systemic effects	3.72 mg/m3

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
aluminium powder (stabilised)	Fresh water	0.0749 mg/l
	clarification plant	20 mg/l

8.2 Exposure controls

Personal protective equipment

Eye protection : Face-shield

Safety glasses

Hand protection

Material : Leather

Glove length : Long sleeve gloves

Remarks : Leather gloves The choice of an appropriate glove does not

only depend on its material but also on other quality features

and is different from one producer to the other.

The suitability for a specific workplace should be discussed

with the producers of the protective gloves.

Skin and body protection : Anti-static and fire resistant protective clothing. DIN EN

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11612; EN 533; EN 1149-1. Anti-static safety shoes.

Dust impervious protective suit

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection : Use suitable breathing protection if workplace concentration

requires.

Breathing apparatus with filter.

P1 filter

Environmental exposure controls

Water : The product should not be allowed to enter drains, water

courses or the soil.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : powder

Colour : silver

Odour : odourless

Odour Threshold : No data available

pH : No data available

Melting point/freezing point : 660 °C

Boiling point/boiling range : 2,467 °C

Flash point : No data available

Evaporation rate : No data available

Flammability (solid, gas) : The substance or mixture is a flammable solid with the

category 1.

Self-ignition : No data available

Auto-ignition temperature : 340 °C

Smoldering temperature : 230 °C

Decomposition temperature : No data available

Explosive properties : No data available

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Oxidizing properties : No data available

Upper explosion limit / Upper

flammability limit

: No data available

Lower explosion limit / Lower

flammability limit

: 30 g/m3

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : No data available

Density : 2.5 g/cm³

Bulk density : No data available

Solubility(ies)

Water solubility : insoluble

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

: No data available

Decomposition temperature : No data available

Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

Flow time : No data available

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : Contact with acids and alkalis may release hydrogen.

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Stable under recommended storage conditions.

Dust may form explosive mixture in air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : Acids

Bases

Oxidizing agents

Water

10.6 Hazardous decomposition products

Contact with water or humid

: This information is not available.

air

Thermal decomposition : This information is not available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not classified based on available information.

Product:

Acute inhalation toxicity : LC50 (Rat): > 888 mg/l

Exposure time: 4 h

Components:

aluminium powder (stabilised):

Acute inhalation toxicity : LC50 (Rat): > 5 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

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Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Further information

Product:

Remarks: No data available

SECTION 12: Ecological information

12.1 Toxicity

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered

to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of

0.1% or higher...

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12.6 Other adverse effects

Product:

Additional ecological

information

: No data available

SECTION 13: Disposal considerations

European Waste Catalogue : 12 01 04 - non-ferrous metal dust and particles

European Waste Catalogue : 10 03 21 - other particulates and dust (including ball-mill dust)

containing hazardous substances

13.1 Waste treatment methods

Product : Do not dispose of waste into sewer.

Do not contaminate ponds, waterways or ditches with

chemical or used container.

Send to a licensed waste management company. In accordance with local and national regulations.

Contaminated packaging : Empty remaining contents.

Dispose of as unused product. Do not re-use empty containers.

Do not burn, or use a cutting torch on, the empty drum. In accordance with local and national regulations.

SECTION 14: Transport information

14.1 UN number

 ADR
 : UN 1309

 IMDG
 : UN 1309

 IATA
 : UN 1309

14.2 UN proper shipping name

ADR : ALUMINIUM POWDER, COATED IMDG : ALUMINIUM POWDER, COATED

IATA : Aluminium powder, coated

14.3 Transport hazard class(es)

ADR : 4.1 **IMDG** : 4.1 **IATA** : 4.1

14.4 Packing group

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ADR

Packing group : II
Classification Code : F3
Hazard Identification Number : 40
Labels : 4.1
Tunnel restriction code : (E)

IMDG

Packing group : II Labels : 4.1 EmS Code : F-G, S-G

Remarks : IMDG Code segregation group 15 - Powdered metals

IATA (Cargo)

Packing instruction (cargo : 448

aircraft)

Packing instruction (LQ) : Y441
Packing group : II

Labels : Flammable Solid

IATA (Passenger)

Packing instruction : 445

(passenger aircraft)

Packing instruction (LQ) : Y441
Packing group : II

Labels : Flammable Solid

14.5 Environmental hazards

ADR

Environmentally hazardous : no

IMDG

Marine pollutant : no

14.6 Special precautions for user

Not applicable

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

REACH - Candidate List of Substances of Very High : Not applicable

Concern for Authorisation (Article 59).

Regulation (EC) No 1005/2009 on substances that : Not applicable

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deplete the ozone layer

Regulation (EC) No 850/2004 on persistent organic : Not applicable

pollutants

15.2 Chemical safety assessment

SECTION 16: Other information

Full text of other abbreviations

GB EH40 : UK. EH40 WEL - Workplace Exposure Limits

GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO -International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardization: KECI - Korea Existing Chemicals Inventory: LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID -Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is

according to Regulation (EC) No. 1907/2006



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not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

GB/EN