

**STANDART PCU 5000 Aluminium Powder**

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**SECTION 1. IDENTIFICATION**

Product name : STANDART PCU 5000 Aluminium Powder  
Product code : 041244EP0

**Manufacturer or supplier's details**

Company name of supplier : ECKART America Corporation  
Address : 830 East Erie Street  
Painesville OH 44077  
Telephone : 866-458-7837  
(440) 954-7600  
Telefax : (440) 354-6224  
e-mail adresse : info.eckart.america.oh@altana.com  
Emergency telephone : **CHEMTREC:** 800-424-9300  
**CHEMTREC:** 1-703-527-3387 (International)

**NCEC:**

(contract no. ECKART29003-NCEC)  
US: +1 866 928 0789 (Toll free)  
Canada: +1 800 579 7421 (Toll Free)  
Mexico: +52 55 5004 8763

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**SECTION 2. HAZARDS IDENTIFICATION**

**GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)**

Not a hazardous substance or mixture.

**GHS label elements**

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required.

**Other hazards**

None known.

**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](http://www.eckart.net/fileadmin/eckart/Service/GDA_Alupulver_Safety_engl.pdf)

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**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS****Hazardous ingredients**

Chemical name	CAS-No.	Concentration (% w/w)
Aluminum	7429-90-5	$\geq 70$ - $< 90$
Silica	7631-86-9	$\geq 5$ - $< 10$

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Actual concentration is withheld as a trade secret

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**SECTION 4. FIRST AID MEASURES**

General advice	:	Take the victim into fresh air. Do not leave the victim unattended.
If inhaled	:	Remove to fresh air. 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.
In case of eye contact	:	Remove contact lenses. 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.
Most important symptoms and effects, both acute and delayed	:	None known.

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**SECTION 5. FIRE-FIGHTING MEASURES**

Suitable extinguishing media	:	Dry sand Special powder against metal fire
Unsuitable extinguishing media	:	ABC powder Carbon dioxide (CO <sub>2</sub> ) Water Foam
Specific hazards during fire fighting	:	Contact with water liberates extremely flammable gas (hydrogen).
Further information	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Special protective equipment for fire-fighters	:	Wear self-contained breathing apparatus for firefighting if necessary.

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment. Evacuate personnel to safe areas. Avoid dust formation.
General advice	:	The product should not be allowed to enter drains, water courses or the soil. If the product contaminates rivers and lakes or drains inform

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- Environmental precautions : respective authorities.  
The product should not be allowed to enter drains, water courses or the soil.
- If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Use mechanical handling equipment.  
Do not use a vacuum cleaner.
- Pick up and arrange disposal without creating dust.  
Sweep up and shovel.  
Keep in suitable, closed containers for disposal.

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**SECTION 7. HANDLING AND STORAGE**

- Advice on protection against fire and explosion : During processing, dust may form explosive mixture in air.  
Take measures to prevent the build up of electrostatic charge.  
Earthing of containers and apparatuses is essential.  
Use explosion-proof equipment.  
When transferring from one container to another apply earthing measures and use conductive hose material.
- Provide appropriate exhaust ventilation at places where dust is formed.
- Advice on safe handling : Avoid creating dust.  
Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.  
Keep away from heat and sources of ignition.  
Do not smoke.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.
- Conditions for safe storage : Reaction with water liberates extremely flammable gas (hydrogen)  
Store in original container.  
Keep containers tightly closed in a cool, well-ventilated place.  
Keep container closed when not in use.  
Keep away from sources of ignition - No smoking.  
Electrical installations / working materials must comply with the technological safety standards.
- Technical measures/Precautions : Protect from humidity and water.
- Materials to avoid : Do not store together with oxidizing and self-igniting products.  
Never allow product to get in contact with water during

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storage.

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

No materials to be especially mentioned.

Further information on storage stability : Keep in a dry place.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

## Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Aluminum	7429-90-5	TWA (total dust)	50 Million particles per cubic foot	OSHA Z-3
		TWA (Respirable)	5 mg/m3	NIOSH REL
		TWA (total dust)	15 mg/m3	OSHA Z-3
		TWA (total)	10 mg/m3	NIOSH REL
		TWA (respirable fraction)	5 mg/m3	OSHA Z-3
		TWA (respirable fraction)	15 Million particles per cubic foot	OSHA Z-3
		TWA (Respirable particulate matter)	1 mg/m3	ACGIH
		TWA	5 mg/m3 (Aluminum)	NIOSH REL
		TWA (Total)	15 mg/m3 (Aluminum)	OSHA P0
		TWA (Respirable fraction)	5 mg/m3 (Aluminum)	OSHA P0
		TWA (total dust)	15 mg/m3 (Aluminum)	OSHA Z-1
		TWA (respirable fraction)	5 mg/m3 (Aluminum)	OSHA Z-1

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		TWA (Total dust)	15 mg/m3 (Aluminum)	OSHA P0
		TWA (respirable dust fraction)	5 mg/m3 (Aluminum)	OSHA P0
		TWA (welding fumes)	5 mg/m3 (Aluminum)	NIOSH REL
		TWA (pyro powders)	5 mg/m3 (Aluminum)	NIOSH REL
		TWA (Respirable particulate matter)	1 mg/m3 (Aluminum)	ACGIH
		TWA (Fumes)	5 mg/m3	OSHA P0
		TWA (powder)	5 mg/m3 (Aluminum)	OSHA P0
Silica	7631-86-9	TWA (Dust)	20 Million particles per cubic foot (Silica)	OSHA Z-3
		TWA (Dust)	80 mg/m3 / %SiO2 (Silica)	OSHA Z-3
		TWA	6 mg/m3 (Silica)	NIOSH REL

**Personal protective equipment**

Respiratory protection : Use suitable breathing protection if workplace concentration requires.  
 Breathing apparatus with filter.  
 P1 filter  
 No personal respiratory protective equipment normally required.

## 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.

Eye protection : Face-shield  
 Safety glasses

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

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Hygiene measures : 11612; EN 533; EN 1149-1; Anti-static safety shoes  
Protective suit  
General industrial hygiene practice.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	: powder
Color	: silver
Odor	: characteristic
Odor Threshold	: No data available
pH	: substance/mixture is non-soluble (in water)
Melting point/ range	: 660 °C
Flash point	: Not applicable
Evaporation rate	: Not applicable
Flammability (solid, gas)	: No data available
Upper explosion limit / Upper flammability limit	: Combustible Solids
Lower explosion limit / Lower flammability limit	
Vapor pressure	: 30 g/m3
Relative density	: No data available
Density	: No data available
Bulk density	: 2.5 g/cm3
Solubility(ies)	
Water solubility	: 0.25 - 0.45 g/cm3
Partition coefficient: n-octanol/water	: insoluble
Autoignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available

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**SECTION 10. STABILITY AND REACTIVITY**

Reactivity	: No decomposition if stored and applied as directed.
Chemical stability	: No decomposition if stored and applied as directed.
Possibility of hazardous reactions	: Contact with acids and alkalis may release hydrogen. Stable under recommended storage conditions. Dust may form explosive mixture in air.
Conditions to avoid	: No data available
Incompatible materials	: Acids Bases

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Oxidizing agents  
Water

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**SECTION 11. TOXICOLOGICAL INFORMATION****Acute toxicity**

Not classified due to lack of data.

**Components:****Silica:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

(Mouse): 15,000 mg/kg

Acute inhalation toxicity : (Rat): 0.139 mg/l  
Exposure time: 4 h

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg

**Skin corrosion/irritation**

Not classified due to lack of data.

**Serious eye damage/eye irritation**

Not classified due to lack of data.

**Respiratory or skin sensitization****Skin sensitization**

Not classified due to lack of data.

**Respiratory sensitization**

Not classified due to lack of data.

**Germ cell mutagenicity**

Not classified due to lack of data.

**Carcinogenicity**

Not classified due to lack of data.

**IARC**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA**

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**NTP**

No ingredient of this product present at levels greater than or

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equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**Reproductive toxicity**

Not classified due to lack of data.

**STOT-single exposure**

Not classified due to lack of data.

**STOT-repeated exposure**

Not classified due to lack of data.

**Aspiration toxicity**

Not classified due to lack of data.

**Further information**

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**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Components:****Silica:**

Toxicity to daphnia and other : (Daphnia): 7,600 mg/l  
aquatic invertebrates

Toxicity to algae : (Chlorella pyrenoidosa): 440 mg/l

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Other adverse effects**

No data available

**Components:****Silica:**

Additional ecological : No data available  
information

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**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.



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**SECTION 14. TRANSPORT INFORMATION****Domestic regulation****49 CFR**

Not regulated as a dangerous good

**49 CFR** : Not classified as dangerous in the meaning of transport regulations.

**International Regulations****UNRTDG**

Not regulated as a dangerous good

**IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

Remarks : Not classified as dangerous in the meaning of transport regulations.

**ADR** : Not classified as dangerous in the meaning of transport regulations.

**IATA-DGR** : Not classified as dangerous in the meaning of transport regulations.

**IMDG-Code** : Not classified as dangerous in the meaning of transport regulations.

Not dangerous goods in the meaning of ADR/RID, ADN, IMDG-Code, ICAO/IATA-DGR

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

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**SECTION 15. REGULATORY INFORMATION****EPCRA - Emergency Planning and Community Right-to-Know****CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

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**SARA 302 Extremely Hazardous Substances Threshold Planning Quantity**

This material does not contain any components with a section 302 EHS TPQ.

**SARA 311/312 Hazards** : No SARA Hazards

**SARA 313** : The following components are subject to reporting levels established by SARA Title III, Section 313:

Aluminum	7429-90-5	>= 70 - < 90 %
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**Clean Air Act**

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App. A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

**Clean Water Act**

This product does not contain any Hazardous Substances listed under the U.S. Clean Water Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. Clean Water Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

This product does not contain any priority pollutants related to the U.S. Clean Water Act

**US State Regulations****Massachusetts Right To Know**

Aluminum	7429-90-5
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Silica	7631-86-9
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**Pennsylvania Right To Know**

Aluminum	7429-90-5
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Silica	7631-86-9
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2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester	2530-85-0
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**California Prop. 65**

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**WARNING:** This product can expose you to chemicals including lead and cadmium, which is/are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**California List of Hazardous Substances**

Aluminum	7429-90-5
Silica	7631-86-9

**California Permissible Exposure Limits for Chemical Contaminants**

Aluminum	7429-90-5
Silica	7631-86-9

**The ingredients of this product are reported in the following inventories:**

DSL	: All components of this product are on the Canadian DSL
TSCA	: All substances listed as active on the TSCA inventory

**TSCA list**

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

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**SECTION 16. OTHER INFORMATION****Full text of other abbreviations**

ACGIH	: USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL	: USA. NIOSH Recommended Exposure Limits
OSHA P0	: USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
OSHA Z-1	: USA. Occupational Exposure Limits (OSHA) - Table Z-1
OSHA Z-3	: USA. Occupational Exposure Limits (OSHA) - Table Z-3
ACGIH / TWA	: 8-hour, time-weighted average
NIOSH REL / TWA	: Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
OSHA P0 / TWA	: 8-hour time weighted average
OSHA Z-1 / TWA	: 8-hour time weighted average
OSHA Z-3 / TWA	: 8-hour time weighted average

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AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; 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; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; 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; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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The information provided in this Material 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 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.

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