

**STANDART RESIST 211 Aluminium Powder**

Version 1.0      Revision Date: 03/21/2018      SDS Number: 102000000283      Date of last issue: -  
Date of first issue: 03/21/2018

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**SECTION 1. IDENTIFICATION**

Product name : STANDART RESIST 211 Aluminium Powder  
Product code : 049185D70

**Manufacturer or supplier's details**

Company name of supplier : ECKART GmbH

Address : Guentersthal 4  
Hartenstein 91235

Telephone : +499152770

Telefax : +499152777008

Emergency telephone number : CHEMTREC: 800-424-9300  
CHEMTREC: 1-703-527-3387 (International)

GBK Gefahrgut Buero GmbH, Ingelheim, Germany:  
From outside US: (001) 352-323-3500  
(First call in English, response in your language is possible)  
US & Canada (toll free):1-800-5355-053

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**SECTION 2. HAZARDS IDENTIFICATION****GHS classification in accordance with the Hazardous Products Regulations**

Flammable solids : Category 1

Combustible dust : Category 1

**GHS label elements**

Hazard pictograms :



Signal word : Danger

Hazard statements : H228 Flammable solid.  
May form combustible dust concentrations in air.

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Precautionary statements : **Prevention:**

P210      Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P240      Ground and bond container and receiving equipment.

P241      Use explosion-proof electrical/ ventilating/ lighting equipment.

P280      Wear protective gloves/ protective clothing/ 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.

### Other hazards

None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
Aluminum	7429-90-5	>= 90 - <= 100

## SECTION 4. 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.

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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. FIREFIGHTING 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 firefighting : Contact with water liberates extremely flammable gas (hydrogen).

Further information : Standard procedure for chemical fires.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Special protective equipment for firefighters : 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.  
Remove all sources of ignition.

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.

Methods and materials for containment and cleaning up : Use mechanical handling equipment.  
Do not use a vacuum cleaner.

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Do not flush with water.  
Keep in suitable, closed containers for disposal.

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### SECTION 7. HANDLING AND STORAGE

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.

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.

Conditions for safe storage : 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 well-ventilated place.  
Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid : 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.

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

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

## Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Aluminium	7429-90-5	TWAEV	10 mg/m <sup>3</sup>	CA QC OEL
		TWA	10 mg/m <sup>3</sup>	CA AB OEL
		TWA (Respirable)	1 mg/m <sup>3</sup>	CA BC OEL
		TWA (Dust)	10 mg/m <sup>3</sup>	CA AB OEL
		TWAEV	10 mg/m <sup>3</sup>	CA QC OEL
		TWA (Respirable)	1 mg/m <sup>3</sup> (Aluminium)	CA BC OEL
		TWAEV (Fumes)	5 mg/m <sup>3</sup> (Aluminium)	CA QC OEL
		TWA (Respirable fraction)	1 mg/m <sup>3</sup>	ACGIH
		TWA (Respirable fraction)	1 mg/m <sup>3</sup> (Aluminium)	ACGIH

## Personal protective equipment

Respiratory protection : Use suitable breathing protection if workplace concentration requires.  
Breathing apparatus with filter.  
P1 filter

## 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.

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The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection	:	Face-shield Safety glasses
Skin and body protection	:	Anti-static and fire resistant protective clothing. DIN EN 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.
Hygiene measures	:	Wash hands before breaks and at the end of workday.

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### SECTION 9. 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)	:	combustible dust
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	30 g/m <sup>3</sup>
Vapour pressure	:	No data available
Relative density	:	No data available
Density	:	2.5 g/cm <sup>3</sup>
Solubility(ies)	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	340 °C
Decomposition temperature	:	No data available
Viscosity	:	No data available

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### SECTION 10. STABILITY AND REACTIVITY

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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 : Heat, flames and sparks.

Incompatible materials : Acids  
Bases  
Oxidizing agents  
Water

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

Not classified based on available information.

**Skin corrosion/irritation**

Not classified based on available information.

**Serious eye damage/eye irritation**

Not classified based on available information.

**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.

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**STOT - repeated exposure**

Not classified based on available information.

**Aspiration toxicity**

Not classified based on available information.

**Further information**

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**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Other adverse effects**

No data available

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

- |                        |   |  |
|------------------------|---|--|
| Waste from residues    | : | Do not dispose of waste into sewer.<br>Do not contaminate ponds, waterways or ditches with chemical or used container.<br>Send to a licensed waste management company.<br>In accordance with local and national regulations. |
| Contaminated packaging | : | Empty remaining contents.<br>Dispose of as unused product.<br>Do not re-use empty containers.<br>Do not burn, or use a cutting torch on, the empty drum.<br>In accordance with local and national regulations.               |

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**SECTION 14. TRANSPORT INFORMATION****International Regulations****IATA-DGR**

- |                      |   |                          |
|----------------------|---|--------------------------|
| UN/ID No.            | : | UN 1309                  |
| Proper shipping name | : | Aluminium powder, coated |
| Class                | : | 4.1                      |
| Packing group        | : | II                       |
| Labels               | : | Flammable Solid          |
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Packing instruction (cargo aircraft) : 448

Packing instruction (passenger aircraft) : 445

**IMDG-Code**

UN number : UN 1309

Proper shipping name : ALUMINIUM POWDER, COATED

Class : 4.1

Packing group : II

Labels : 4.1

EmS Code : F-G, S-G

Marine pollutant : no

Remarks : IMDG Code segregation group 15 - Powdered metals

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

Not applicable for product as supplied.

**National Regulations****TDG**

UN number : UN 1309

Proper shipping name : ALUMINUM POWDER, COATED

Class : 4.1

Packing group : II

Labels : 4.1

ERG Code : 170

Marine pollutant : no

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**SECTION 15. REGULATORY INFORMATION**

**NPRI Components** : Aluminum

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

DSL : All components of this product are on the Canadian DSL

TSCA : On TSCA Inventory

**Canadian lists**

No substances are subject to a Significant New Activity Notification.

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

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ACGIH : USA. ACGIH Threshold Limit Values (TLV)  
 CA AB OEL : Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)  
 CA BC OEL : Canada. British Columbia OEL  
 CA QC OEL : Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants  
 ACGIH / TWA : 8-hour, time-weighted average  
 CA AB OEL / TWA : 8-hour Occupational exposure limit  
 CA BC OEL / TWA : 8-hour time weighted average  
 CA QC OEL / TWA : Time-weighted average exposure value

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); 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; ERG - Emergency Response Guide; 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; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; 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; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; 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; WHMIS - Workplace Hazardous Materials Information System

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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

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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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