

**S-292 SPHERICAL ATOMIZED**

Version	Revision Date:	SDS Number:	Date of last issue: 12/11/2019
3.0	01/03/2025	102000026512	Date of first issue: 03/27/2018

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**SECTION 1. IDENTIFICATION**

Product name : S-292 SPHERICAL ATOMIZED  
Product code : 046613BU0

**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)**

Combustible dust

**GHS label elements**

Signal Word : Warning  
Hazard Statements : May form combustible dust concentrations in air.

**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**

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

Actual concentration is withheld as a trade secret

**SECTION 4. FIRST AID MEASURES**

General advice : Take the victim into fresh air.  
No hazards which require special first aid measures.

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.

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.

**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 : Standard procedure for chemical fires.  
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.

**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

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Environmental precautions : courses or the soil.  
The product should not be allowed to enter drains, water courses or the soil.

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.  
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 : 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.

Normal measures for preventive fire protection.

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 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

## Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Aluminum	7429-90-5	TWA (Respirable)	5 mg/m3	NIOSH REL
		TWA (total)	10 mg/m3	NIOSH REL
		TWA (total dust)	15 mg/m3 (Aluminum)	OSHA Z-1
		TWA (respirable fraction)	5 mg/m3 (Aluminum)	OSHA Z-1
		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 (Fumes)	5 mg/m3	OSHA P0
		TWA (pyro powders)	5 mg/m3 (Aluminum)	NIOSH REL
		TWA (Respirable particulate matter)	1 mg/m3 (Aluminum)	ACGIH
		TWA (powder)	5 mg/m3 (Aluminum)	OSHA P0

## 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

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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 11612; EN 533; EN 1149-1; Anti-static safety shoes
Hygiene measures	:	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
Boiling point/boiling range	:	140 - 200 °C
Flash point	:	No data available
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Combustible Solids  combustible dust
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	30 g/m3
Vapor pressure	:	No data available
Relative density	:	No data available
Density	:	1.3 - 2.0 g/cm3 (20 °C)
Solubility(ies)	:	
Water solubility	:	insoluble
Partition coefficient: n-octanol/water	:	No data available
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.
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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 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 sensitization****Skin sensitization**

Not classified based on available information.

**Respiratory sensitization**

Not classified based on available information.

**Germ cell mutagenicity**

Not classified based on available information.

**Carcinogenicity**

Not classified based on available information.

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

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**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**

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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	:	In accordance with local and national regulations.
Contaminated packaging	:	Empty containers should be taken to an approved waste handling site for recycling or disposal. In accordance with local and national regulations.

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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**

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**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.

**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** : Combustible dust

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

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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 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. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater 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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**Pennsylvania Right To Know**

Aluminum	7429-90-5
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**California Prop. 65**

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
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**California Permissible Exposure Limits for Chemical Contaminants**

Aluminum	7429-90-5
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**The ingredients of this product are reported in the following inventories:**

DSL	: All components of this product are on the Canadian DSL
TSCA	: On TSCA Inventory

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**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 Limits for Air Contaminants
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

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

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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; TE CI - 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

Revision Date : 01/03/2025

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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