

## **SAFETY DATA SHEET**

(Commission Regulation (EU) 2015/830 of 28 May 2015 )

### **Gme-14000 Aluminum Powder**

Product : Gme-14000 Aluminum Powder  
Document Code : AG-F-159  
Prepared at : 12/09/2018  
Revised at : 11/06/2020  
Revision No : 01  
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## **1. SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

### **1.1. Product identifier**

Product Description : Aluminum powder  
Cat No. : A/1605/53, A/1605/50  
CAS-No : 7429-90-5  
EC-No. : 231-072-3  
Molecular Formula : Al

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

Recommended Use : Laboratory chemicals.  
Uses advised against : No Information available

### **1.3. Details of the supplier of the safety data sheet**

Manufacturer : GÜVEN METAL SANAYİ VE TİCARET LİMİTED ŞİRKETİ  
Address : Sanayi mah. 60001 nolu cadde No:47 Şehitkamil – Gaziantep / TÜRKİYE  
Web : www.guvenmetal.com.tr  
E-mail address : info@guvenmetal.com.tr

### **1.4. Emergency telephone number : +90 342 2350225**

## **2. SECTION 2: HAZARDS IDENTIFICATION**

### **2.1. Classification of the substance or mixture**

CLP Classification - Regulation (EC) No 1272/2008

#### **Physical hazards**

Flammable solids Category 1 (H228)  
Substances/mixtures which, in contact with water, emit flammable gases Category 2 (H261)

#### **Health hazards**

Based on available data, the classification criteria are not met

### **2.2. Label elements**



Signal Word **Danger**

#### **Hazard Statements**

H228 - Flammable solid  
H261 - In contact with water releases flammable gases  
May form combustible dust concentrations in air

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**Precautionary Statements**

P240 - Ground and bond container and receiving equipment

P231 + P232 - Handle and store contents under inert gas. Protect from moisture.

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

P302 + P335 + P334 - IF ON SKIN: Brush off loose particles from skin. Immerse in cool water

**2.3. Other hazards**

Water reactive

In accordance with Annex XIII of the REACH Regulation, inorganic substances do not require assessment

May form explosible dust-air mixture if dispersed

**3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.1. Substances**

Component	CAS-No	EC-No.	Weight %	CLP Classification - Regulation (EC) No 1272/2008
Aluminium powder (stabilized)	7429-90-5	EEC No. 231-072-3	>95	Flam. Sol. 1 (H228) Water-react. 2 (H261)

**4. SECTION 4: FIRST AID MEASURES****4.1. Description of first aid measures**

**Eye Contact** : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
Get medical attention.

**Skin Contact** : Wash off immediately with soap and plenty of water. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Get medical attention if irritation develops and persists.

**Ingestion** : Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention.

**Inhalation** : Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration.

**Self-Protection of the First Aider** : Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

**4.2. Most important symptoms and effects, both acute and delayed**

No information available.

**4.3. Indication of any immediate medical attention and special treatment needed**

Notes to Physician Treat symptomatically.

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## **5. SECTION 5: FIREFIGHTING MEASURES**

### **5.1. Extinguishing media**

#### **Suitable Extinguishing Media**

Dry sand. Limestone powder. dry clay. metal fire extinguishing powder.

#### **Extinguishing media which must not be used for safety reasons**

Water. Decomposition by contact with water may generate vapors which can be ignited by heat or open flame. Remove all sources of ignition.

### **5.2. Special hazards arising from the substance or mixture**

Contact with water liberates extremely flammable gases. Dust can form an explosive mixture with air. May be ignited by heat, sparks or flames. May ignite on contact with moist air or moisture. Flammable. Fine dust dispersed in air may ignite.

#### **Hazardous Combustion Products**

Hydrogen, Burning produces obnoxious and toxic fumes, Fumes of aluminum or aluminum oxide.

### **5.3. Advice for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## **6. SECTION 6: ACCIDENTAL RELEASE MEASURES**

### **6.1. Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation. Use personal protective equipment as required. For further specification, refer to section 8 of the SDS.

Do not get water inside containers: Protect from moisture

### **6.2. Environmental precautions**

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional Ecological Information.

### **6.3. Methods and material for containment and cleaning up**

Avoid dust formation. Sweep up and remove immediately. Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

Do not expose spill to water.

### **6.4. Reference to other sections**

Refer to protective measures listed in Sections 8 and 13.

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## **7. SECTION 7: HANDLING AND STORAGE**

### **7.1. Precautions for safe handling**

Use only in well-ventilated areas. Avoid contact with skin and eyes. Avoid ingestion and inhalation. Do not allow contact with water. Minimize dust generation and accumulation. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Take precautionary measures against static discharges. Do not get water inside containers

#### **Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

### **7.2. Conditions for safe storage, including any incompatibilities**

Keep containers tightly closed in a dry, cool and well-ventilated place. Flammables area. Keep away from heat, sparks and flame. Keep away from oxidizing agents. Keep away from combustible material. Keep away from acids.

**Technical Rules for Hazardous Substances (TRGS) 510 Storage Class (LGK)(Germany)**

Class 4.3

### **7.3. Specific end use(s)**

Use in laboratories

## **8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **8.1. Control parameters**

#### **Exposure limits**

List source(s): UK - EH40/2005 Work Exposure Limits, Third edition. Published 2018. IRE - 2018 Code of Practice for the Chemical Agents Regulations, Schedule 1. Published by the Health and Safety Authority

Component	The United Kingdom	European Union	Ireland
Aluminium powder (stabilized)	STEL: 30 mg/m <sup>3</sup> 15 min STEL: 12 mg/m <sup>3</sup> 15 min TWA: 10 mg/m <sup>3</sup> 8 hr TWA: 4 mg/m <sup>3</sup> 8 hr		TWA: 1 mg/m <sup>3</sup> 8 hr. respirable fraction STEL: 3 mg/m <sup>3</sup> 15 min

#### **Biological limit values**

List source(s):

#### **Monitoring methods**

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust

#### **Derived No Effect Level (DNEL)**

No information available

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Route of exposure	Acute effects (local)	Acute effects (systemic)	Chronic effects (local)	Chronic effects (systemic)
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Oral Dermal Inhalation

Predicted No Effect Concentration (PNEC) No information available.

**8.2. Exposure controls****Engineering Measures**

Ensure adequate ventilation, especially in confined areas.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

**Personal protective equipment Eye Protection**

Goggles (European standard - EN 166)

**Hand Protection**

Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
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Natural rubber

Nitrile rubber  
Neoprene  
PVCSee manufacturers  
recommendations

-

EN 374

(minimum requirement)

**Skin and body protection**

Wear appropriate protective gloves and clothing to prevent skin exposure

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves.(Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g.sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

**Respiratory Protection**

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly.

**Large scale/emergency use**

Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

**Recommended Filter type:** Particulates filter conforming to EN 143**Small scale/Laboratory use**

Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Recommended half mask:-** Particle filtering: EN149:2001

When RPE is used a face piece Fit Test should be conducted

**Environmental exposure controls**

No information available.

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**9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1. Information on basic physical and chemical properties**

Physical State	Solid
Appearance	Silver - Grey
Odor	Odorless
Odor Threshold	No data available
Melting Point/Range	660 °C / 1220 °F
Softening Point	No data available
Boiling Point/Range	2467 °C / 4472.6 °F
Flammability (liquid)	Not applicable
Flammability (solid,gas)	No information available
Explosion Limits	No data available

Flash Point	Not applicable	Method - No information available
Autoignition Temperature	760 °C / 1400 °F	
Decomposition Temperature	No data available	
pH	Not applicable	
Viscosity	Not applicable	Solid
Water Solubility	Insoluble. Water reactive	
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/water)		
Vapor Pressure	No data available	
Density / Specific Gravity	No data available	
Bulk Density	No data available	
Vapor Density	Not applicable	Solid
Particle characteristics	No data available	

**9.2. Other information**

Molecular Formula	Al
Molecular Weight	26.98
Flammable solids	Burning rate or burning time = ≤5 minutes
Substances/mixtures which, in contact with water, emit flammable gases	Emitted gas ignites spontaneously
Gas(es) = Hydrogen	
Evaporation Rate	Not applicable – Solid

**10. SECTION 10: STABILITY AND REACTIVITY**

10.1. Reactivity	Yes
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**10.2. Chemical stability**

Moisture sensitive, Air sensitive, Stable under normal conditions.

**10.3. Possibility of hazardous reactions****Hazardous Polymerization  
Hazardous Reactions**Hazardous polymerization does not occur.  
No information available.**10.4. Conditions to avoid**

-heat, sparks and open flames.

Exposure to air. Incompatible products. Exposure to moist air or water. Ignitions sources

**10.5. Incompatible materials**Bases. Water. Strong acids. Halogenated compounds. Chlorine. Fluorine. Bromine. oxygen.lead oxides. Carbon dioxide (CO<sub>2</sub>).**10.6. Hazardous decomposition products**

Hydrogen. Burning produces obnoxious and toxic fumes. Fumes of aluminum or aluminum oxide.

**11. SECTION 11: TOXICOLOGICAL INFORMATION****11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Product Information**

No acute toxicity information is available for this product

**11.1.1. acute toxicity;  
Oral  
Dermal  
Inhalation**No data available  
No data available  
No data available**11.1.2. skin corrosion/irritation;**

No data available

**11.1.3. serious eye damage/irritation;**

No data available

**11.1.4. respiratory or skin sensitization;****Respiratory  
Skin**No data available  
No data available**11.1.5. germ cell mutagenicity;**

No data available

**11.1.6. carcinogenicity;**No data available  
There are no known carcinogenic chemicals in this product**11.1.7. reproductive toxicity;**

No data available

**11.1.8. STOT-single exposure;**

No data available

**11.1.9. STOT-repeated exposure;  
Target Organs**No data available  
No information available.

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**11.1.10. aspiration hazard;** Not applicable Solid  
**Other Adverse Effects** See actual entry in RTECS for complete information  
**Symptoms / effects,both acute and delayed** No information available.

**11.2. Information on other hazards**

**Endocrine Disrupting Properties** Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

**12. SECTION 12: ECOLOGICAL INFORMATION****12.1. Toxicity**

**Ecotoxicity effects** Reacts with water so no ecotoxicity data for the substance is available.

**12.2. Persistence and degradability**

**Persistence** Persistence is unlikely, based on information available, Insoluble in water.  
**Degradability** Not relevant for inorganic substances, No information available, Reacts with water.  
**Degradation in sewage treatment plant** No information available. Water reactive.

**12.3. Bioaccumulative potential** Product does not bioaccumulate due to reaction with water; May have some potential to bioaccumulate

**12.4. Mobility in soil** Reacts with water Spillage unlikely to penetrate soil Is not likely mobile in the environment.  
Is not likely mobile in the environment due its low water solubility.

**12.5. Results of PBT and vPvB assessment** Water reactive. In accordance with Annex XIII of the REACH Regulation, inorganic substances do not require assessment.

**12.6. Endocrine disrupting properties**  
**Endocrine Disruptor Information** This product does not contain any known or suspected endocrine disruptors

**12.7. Other adverse effects**

**Persistent Organic Pollutant** This product does not contain any known or suspected substance  
**Ozone Depletion Potential** This product does not contain any known or suspected substance

**13. SECTION 13: DISPOSAL CONSIDERATIONS****13.1. Waste treatment methods**

**Waste from Residues/Unused Products** Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.



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**Contaminated Packaging** Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.

**European Waste Catalogue (EWC)** According to the European Waste Catalog, Waste Codes are not product specific, but application specific.

**Other Information** Waste codes should be assigned by the user based on the application for which the product was used. Do not flush to sewer. Can be landfilled or incinerated, when in compliance with local regulations.

### **14. SECTION 14: TRANSPORT INFORMATION**

#### **IMDG/IMO**

14.1. UN number	UN1396
14.2. UN proper shipping name	Aluminum powder, uncoated
14.3. Transport hazard class(es)	4.3
14.4. Packing group	II
ADR	
14.4.1. UN number	UN1396
14.4.2. UN proper shipping name	Aluminum powder, uncoated
14.4.3. Transport hazard class(es)	4.3
14.4.4. Packing group	II

#### **IATA**

14.4.4.1. UN number	UN1396
14.4.4.2. UN proper shipping name	Aluminium powder, uncoated
14.4.4.3. Transport hazard class(es)	4.3
14.4.4.4. Packing group	II

14.5. Environmental hazards	No hazards identified
14.6. Special precautions for user	No special precautions required
14.7. Maritime transport in bulk according to IMO instruments	Not applicable, packaged goods

### **15. SECTION 15: REGULATORY INFORMATION**

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

##### **International Inventories**

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X = listed, Europe (EINECS/ELINCS/NLP), U.S.A. (TSCA), Canada (DSL/NDSL), Philippines (PICCS), China (IECSC), Japan (ENCS), Australia (AICS), Korea (ECL).

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	IECSC	AICS	KECL
Aluminium powder (stabilized)	231-072-3	-		X	X	-	X	X	X	X	KE-0088 1

**Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals**  
Not applicable

#### **National Regulations**

**WGK Classification** See table for values

Component	Germany - Water Classification (VwVwS)	Germany - TA-Luft Class
Aluminium powder (stabilized)	231-072-3	-

Component	France - INRS (Tables of occupational diseases)
Aluminium powder (stabilized)	Tableaux des maladies professionnelles (TMP) - RG 32 Tableaux des maladies professionnelles (TMP) - RG 16,RG 16bis <b>UK</b> - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

#### **15.2. Chemical safety assessment**

A Chemical Safety Assessment/Report (CSA/CSR) has not been conducted

### **16. SECTION 16: OTHER INFORMATION**

#### **Full text of H-Statements referred to under sections 2 and 3**

H228 - Flammable solid

H261 - In contact with water releases flammable gases

**CAS** - Chemical Abstracts Service

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**WEL** - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**TWA** - Time Weighted Average

**IARC** - International Agency for Research on Cancer

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**DNEL** - Derived No Effect Level  
**RPE** - Respiratory Protective Equipment  
**LC50** - Lethal Concentration 50%  
**NOEC** - No Observed Effect Concentration  
**PBT** - Persistent, Bioaccumulative, Toxic

Predicted No Effect Concentration (PNEC)  
**LD50** - Lethal Dose 50%  
**EC50** - Effective Concentration 50%  
**POW** - Partition coefficient Octanol:Water  
**vPvB** - very Persistent, very Bioaccumulative

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road  
**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code  
**OECD** - Organisation for Economic Co-operation and Development  
**BCF** - Bioconcentration factor

**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association  
**MARPOL** - International Convention for the Prevention of Pollution from Ships  
**ATE** - Acute Toxicity Estimate  
**VOC** (volatile organic compound)

#### Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006

#### Disclaimer

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 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