AlumiFoam
Laffan Aluminum

Material Safety Data Sheet
ALUMIFOAM

1. Information on the chemical product and the company	
A. Product Name	Aluminum Foam
B. Suggested use for the product and restrictions in its use	
Suggested use for the product	Composite panels including explosion-proof material, sound. absorption material, and construction material.
Restrictions in use of the product	Not available
C. Manufacturer/importer/distributer information	
Company Name	Laffan Aluminum Factory
Address	Plot 6114, Street 11 New Industrial Area, Doha, Qatar, P.O Box 41134

2. Name and content of components

Components	Alternate Name (Common Name)	CAS Number	Content (%)
CALCIUM	ELEMENTAL CALCIUM	7440-70-2	1.4
	ATOMIC CALCIUM		
ALUMINUM	Aluminum metal	7429-90-5	97
	Aluminum powder		
IRON	FERRIUM	7439-89-6	0.2
SILICON METAL	SILICON POWDER, AMORPHOUS	7440-21-3	0.05
TITANIUM	TITANIUM ELEMENT	7440-32-6	1.2
VANADIUM	VANADIUM-51	7440-62-2	0.07
ZINC	Zinc, elemental	7440-66-6	0.04

3. Hazards Identification

A. Emergency Overview

○ Color: From gray to silver
○ Physical form: Solid
○ Odor: None
○ Main health hazards: skin irritation, eye irritation, allergic response B. Potential health effects
○ Inhalation: Data not available
○ Skin contact:
- Short-tern exposure: Irritation
- Long-term exposure: Irritation, allergic response, skin disorder
○ Eye contact:
- Short-term exposure: Irritation, eye damage
- Long-term exposure: Irritation, eye damage
○ Ingestion: Data not available

4. First Aid Measures	
A. Eye contact	If powders or rough and sharp parts of the aluminum foam gets in contact with the eye and creates a wound, sufficient amount of water must be used to cleanse the eye for at least 15 minutes. Immediate medical treatment is necessary.
B. Skin contact	If rough and sharp parts of the aluminum foam get in contact with the skin and creates a wound, the contaminated clothing or shoe must be taken off, and the wounded area must be immediately washed with soap and water for at least 15 minutes. If wound is severe, seek medical treatment. The contaminated clothing or shoes must be thoroughly washed and dried before reuse.
C. Inhalation	The affected person must be moved to an area with fresh air. The person must be kept warm and composed.
D. If swallowed	If discomfort is experienced upon swallowing the product, medical treatment is necessary. Mouth must be cleansed. If the product is swallowed or inhaled, appropriate respiratory medical device must be used instead of mouth-to-mouth artificial respiration
E. Other cautions from medical doctor	Medical personnel must be aware of the product and take appropriate protective measures.

5. Measures in cases of explosion or fire

A. Risk of fire or explosion

Risk of fire or explosion is negligible when the product is in a bulk form. However, dust/air mixture may ignite or explode.

B. Fire extinguishing agents

Dolomite, dry powder for metal fire, sand, graphite, soda ash, and sodium chloride.

C. Fire suppression

Fire must be extinguished using the agents listed above, and the area must be cooled by water for certain time after the fire is extinguished.

Inhalation of the compound itself or combustion byproduct must be avoided.

6. Accidental release measures

Not applicable.

7. Handling and storage

The product is vulnerable to mechanical shock and must be stored at a location protected from shock.

Because the corners of the product are sharp, appropriate packaging and caution are required during transportation or handling of the product.

8. Exposure controls and personal protection

A. Chemical exposure guidelines and biological exposure guidelines

CALCIUM	Data not available
ALUMINUM	TWA -2mg/m3 Aluminum (soluble salt) TWA -10mg/m3 Aluminum (metal dust) TWA -2mg/m3 Aluminum (alkyl) TWA -5mg/m3 Aluminum (welding fume) TWA -5mg/m3 Aluminum (pyro powder)
IRON	TWA -1mg/m3
SILICON METAL	TWA -10mg/m3
TITANIUM	None
VANADIUM	Data not available
ZINC	TWA -5mg/m3

B. Ventilation	Local exhaust ventilation system must be installed. Check if appropriate for applicable exposure standards
C. Eye protection	Protective mask that can be used with protective glasses for protection against projectiles must be worn. Install emergency eye wash and shower in proximity of the working zone.
D. Protective clothing	Appropriate chemical-resistant protective clothing must be worn
E. Protective gloves	Appropriate chemical-resistant protective gloves must be worn. OSHA regulated material: U.S. OSHA 29 CFR 1910.1025
F. Respiratory protection	Respiratory protective device is required if product is used frequently or severely exposed. Respiratory protection is classified from minimum to maximum concentration Review the characteristics of warning before use.

9. Physiochemical properties	
A. Appearance	
Physical form	Solid
Color	From gray to silver
B. Odor	None
C. Melting point	> 700℃
D. Specific weight (water=1)	> 0.5

10. Stability and reactivity	
A. Reactivity	Water may react explosively upon contact with melted material
B. Conditions to avoid	None reported
C. Incompatibles	Acid, combustible material, oxidant, halogen, halocarbon, peroxide, metal carbide, cyanide, and amine
D. Hazardous substances generated upon decomposition	Not applicable

11. Toxicological information	
A. Information on most probable routes of exposure	Aluminum foam dust particle may be absorbed into the body upon inhalation It may be hazardous if aluminum foam dust particle gets in the eye Skin irritation may occur when aluminum foam is in direct contact with the skin

12. Ecological information
Aluminum foam can be recycled and does not affect the environment

3. Disposal considerations
Aluminum foam can be recycled. It must be recycled according to composition table of aluminum and other components.

14. Transport information
U.S. Department of Transportation (regulation): classification not available

15. Regulatory Information	
U.S. regulatory information (OSHA regulation)	
CALCIUM	Not applicable
ALUMINUM	Not applicable
IRON	Not applicable
SILICON METAL	Not applicable
TITANIUM	Not applicable
VANADIUM	Not applicable
ZINC	Not applicable
U.S. regulatory information (CERCLA regulation)	
CALCIUM	Not applicable
ALUMINUM	Not applicable
IRON	Not applicable
SILICON METAL	Not applicable
TITANIUM	Not applicable
VANADIUM	Not applicable
ZINC	453.599 kg 1000 lb
U.S. regulatory information (EPCRA 302 regulation)	
CALCIUM	Not applicable
ALUMINUM	Not applicable
IRON	Not applicable
SILICON METAL	Not applicable
TITANIUM	Not applicable
VANADIUM	Not applicable
ZINC	Not applicable
U.S. regulatory information (EPCRA 304 regulation)	
CALCIUM	Not applicable
ALUMINUM	Not applicable
IRON	Not applicable
SILICON METAL	Not applicable
TITANIUM	Not applicable
VANADIUM	Not applicable
ZINC	Not applicable
U.S. regulatory information (EPCRA 313 regulation)	
CALCIUM	Not applicable
ALUMINUM	Applicable
IRON	Not applicable
SILICON METAL	Not applicable
TITANIUM	Not applicable
VANADIUM	Applicable
ZINC	Applicable
U.S. regulatory information (Rotterdam Convention listed components)	
CALCIUM	Not applicable
ALUMINUM	Not applicable
IRON	Not applicable
SILICON METAL	Not applicable
TITANIUM	Not applicable
VANADIUM	Not applicable
ZINC	Not applicable
U.S. regulatory information (Stockholm Convention listed components)	
CALCIUM	Not applicable
ALUMINUM	Not applicable
IRON	Not applicable
SILICON METAL	Not applicable
TITANIUM	Not applicable

VANADIUM	Not applicable
ZINC	Not applicable
U.S. regulatory information (Montreal Protocol listed components)	
CALCIUM	Not applicable
ALUMINUM	Not applicable
IRON	Not applicable
SILICON METAL	Not applicable
TITANIUM	Not applicable
VANADIUM	Not applicable
ZINC	Not applicable
EU classification information (definitive classification result)	
CALCIUM	F; R15
ALUMINUM	F; R15-17
IRON	Not applicable
SILICON METAL	Not applicable
TITANIUM	Not applicable
VANADIUM	Not applicable
ZINC	F; R15-17/N; R50-53
EU classification information (risk phrases)	
CALCIUM	R15
ALUMINUM	R15, R17
IRON	Not applicable
SILICON METAL	Not applicable
TITANIUM	Not applicable
VANADIUM	Not applicable
ZINC	R15, R17, R50/53
EU classification information (safety phrases)	
CALCIUM	S2, S8, S24/25, S43
ALUMINUM	S2, S7/8, S43
IRON	Not applicable
SILICON METAL	Not applicable
TITANIUM	Not applicable
VANADIUM	Not applicable
ZINC	S2, S43, S46, S60, S61

16. Other information	
A. Source of the information: Foamtech Global Co., Ltd. B. MSDS provided by Korea Occupational Safety and Health Agency was referred.	
C. Date created	2011-10-05
D. Number of revisions and final revision date	
Number of revisions	0
Final revision date	0
E. Others	■ Additional components in minute quantity 1.Chromium ○ CAS Number: 7440-47-3 ○ Content: 0.002 ~ 0.004% 2.Manganese ○ CAS Number: 7439-96-5 ○ Content: 0.001 ~ 0.003% 3.Copper ○ CAS Number: 7440-50-8 ○ Content: 0.0009~0.0015% 4.Magnesium ○ CAS: 7439-95-4 ○Content: 0.0003 ~ 0.0004%