

Aluivent Zrt. Szeles ut 2. H-3561 Felsőzsolca - Ipari Park, Hungary Mail: info@aluivent.com ; Phone: +36-46-325-317	Material Safety Data Sheet
Initial Released date: September 18, 2015 Revision date: October 12, 2015 Revision Number: 001_2015	Designium[®] - Aluminium Foam
Product does not contain ingredients considered as hazardous. This datasheet was prepared voluntary according to Regulation EC No. 1907/2006. (REACH)	

Section 1: Product and Company Identification	
Product Name: Designium [®] - Aluminium Foam Application: Exterior- and Interior wall cladding, Ceiling panel Synonym: Metal Foam Chemical Name: Aluminium foam Chemical Formula: Mixture	Contact Information: Aluivent Ltd. H-3561 Felsőzsolca, Szeles u. 2. For Assistance, call: 0036304150001 Online: www.aluivent.com Emergency: +3680201199 Egészségügyi-Toxikológiai Szolgálat

Section 2: Composition and Information on Ingredients		
Composition:		
Name	CAS#	% by Weight
Aluminium	7429-90-5	> 75
Alumina (Aluminium-oxide)	1344-28-1	< 25

Section 3: Hazards Identification
Labelling according Regulation (EC) No 1272/2008 Not classified, no H-sentences.
Labelling: according to 1272/2008/EK (CLP): no / no warnings
The health effects listed below are not likely to occur unless mechanical processing of this product generates dust or fumes.
Potential Acute Health Effects: May sometimes be an irritant in case of skin contact. Non-irritating to the eyes. Non-hazardous in case of ingestion.
Potential Chronic Health Effects: Not available.
Precautions (Recommendations)
During mechanical processing of this product mechanical irritation of respiratory tracks may occur.
P261 Avoid breathing dust/fumes/gas/mist/vapours/spray
P280 Wear protective gloves/protective clothing/eye protection/face protection.

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Section 4: First Aid Measures

Eye Contact:

Dust or fume from processing: Flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

Skin Contact:

Dust or fume from processing: Wash skin with soap and water. Get medical attention if irritation develops.

Inhalation:

Dust or fume from processing: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Section 5: Fire and Explosion Data

Flammability of the Product: This product does not present fire or explosion hazards as shipped. Small chips, turnings, dust particles, fines and fumes from further processing may be readily ignitable.

Auto-Ignition Temperature: Not available.

Flash Points: Not available.

Flammable Limits: Not available.

Products of Combustion: Some metallic oxides.

Fire Hazards in Presence of Various Substances:

Risk of explosion of the product in presence of mechanical impact: Not available.

Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions:

Use class D extinguishing agent or sand.

Special Remarks on Fire Hazards: Reactive to water if in molten state.

Special Remarks on Explosion Hazards: Not available.

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Section 6: Accidental Release Measures

Large/Small Spill:

Collect scrap for recycling.

* If Molten: Contain the flow using dry sand or salt flux as a dam. Do not use shovels or hand tools to halt the flow of molten Aluminium. Allow the spill to cool before re-melting as scrap.

Section 7: Handling and Storage

Handling/Storage:

Avoid generating dust or fumes. Hot and cold Aluminium are not visually different. Hot Aluminium does not necessarily glow red.

Gloves are recommended to avoid abrasions during prolonged handling.

Section 8: Exposure Controls/Personal Protection

Engineering Controls:

If dust or fumes are generated through processing: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:

Safety glasses and respiratory protection when dust or fumes from processing are present. Gloves during prolonged handling to protect against abrasion.

Exposure Limits:

Germany: inhalable dust 10 mg/m³ , respirable dust 3 mg/m³

Great-Britain: inhalable dust 10mg/m³ , respirable dust 4 mg/m³

USA: OSHA - Respirable fraction 5 mg/m³ , Total dust: 15 mg/m³

Hungary: inhalable dust 10mg/m³ , respirable dust 6 mg/m³

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Section 9: Physical and Chemical Properties

Physical state and appearance: Sponge like and silvery in color.

Odor: Odorless.

Taste: Not available.

Molecular Weight: Al: 26.98 g/mol; Al₂O₃: 101.96 g/mol

Color: Silver-white

pH (1% soln/water): Not applicable.

Boiling Point: Not applicable

Melting Point: 585°C

Critical Temperature: Not available.

Density: Range: generally 0.1-0.4 g/cm³

Vapor Pressure: Not applicable.

Vapor Density: Not available.

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: Not available.

Solubility:
 Insoluble in cold water, hot water. Soluble in alkalies, Sulfuric acid, Hydrochloric acid.
 Insoluble in concentrated Nitric Acid, hot Acetic acid.

Section 10: Stability and Reactivity Data

Stability: Stable under normal conditions of use, storage, and transportation as shipped.

Instability Temperature: Not available.

Conditions of Instability: Incompatible materials

Incompatibility with various substances: Reactive with oxidizing agents, acids, alkalis.

Corrosivity: Not available.

Special Remarks on Reactivity:
 Aluminium reacts vigorously with Sodium Hydroxide.

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Aluminium is also incompatible with strong oxidizers, acids, chromic anhydride, iodine, carbon disulfide, methyl chloride, and halogenated hydrocarbons, acid chlorides, ammonium nitrate, ammonium persulfate, antimony, arsenic oxides, barium bromate, barium chlorate, barium iodate, metal salts.

Special Remarks on Corrosivity:

In moist air, oxide film forms, which protects metal from corrosion.
 Aluminium is strongly electropositive so that it corrodes rapidly in contact with other metals.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Not available.

Toxicity to Animals: Not available.

Chronic Effects on Humans: Not available.

Other Toxic Effects on Humans: May sometimes be an irritant in case of skin contact.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Aluminium dust, fines and fumes present a low health risk by inhalation. Generally considered to be biologically inert (milling, cutting, grinding).

Potential Acute Overexposure Health Effects:

Skin: Exposure to Aluminium may sometimes cause skin irritation.

Eyes: Not expected to be a hazard unless Aluminium dust particles are present. Exposure to Aluminium dust may cause eye irritation by mechanical action. Aluminium particles deposited in the eye are generally innocuous.

Inhalation: Not expected to be an inhalation hazard unless it is heated or if Aluminium dust is present. If heated or in dust form, it may cause respiratory tract irritation. Heating Aluminium can release Aluminium Oxide fumes and cause fume metal fever when inhaled. This is a flu-like illness with symptoms of metallic taste, fever, chills, aches, chest tightness, and cough.

Ingestion: Acute Aluminium toxicity is unlikely.

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Potential Chronic overexposure Health Effects:

Skin: Contact dermatitis occurs rarely after Aluminium exposure.

Inhalation: Chronic exposure to Aluminium dust may cause dyspnea, cough, asthma, chronic obstructive lung disease, pulmonary fibrosis, pneumothorax, pneumoconiosis, encephalopathy, weakness, incoordination and epileptiform seizures and other neurological symptoms similar to that described for chronic ingestion. Hepatic necrosis is also a reported effect of exposure to airborne particulates carrying Aluminium.

Ingestion: Chronic ingestion of Aluminium may cause Aluminium Related Bone Disease or Aluminium-induced Osteomalacia with fracturing Osteodystrophy, microcytic anemia, weakness, fatigue, visual and auditory hallucinations, memory loss, speech and language impairment (dysarthria, stuttering, stammering, anomia, hypofluency, aphasia and eventually, mutism), epileptic seizures (focal or grand mal), motor disturbance (tremors, myoclonic jerks, ataxia, convulsions, asterixis, motor apraxia, muscle fatigue), and dementia (personality changes, altered mood, depression, diminished alertness, lethargy, 'clouding of the sensorium', intellectual deterioration, obtundation, coma), and altered EEG.

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation: Possibly hazardous short-term degradation products are not likely.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Disposal Instructions: Reuse or recycle material whenever possible. Material may be disposed of at an industrial landfill.

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

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Section 14: Transport Information

UN number: Not regulated

Transport hazard class(es): Not regulated

Packaging group: -

Environmental hazards: Not regulated

Special Provisions for Transport: Not applicable.

Other applicable information:

Not classified as dangerous goods according to ADR, RID, IMDG or IATA

Section 15: Other Regulatory Information

GENERAL BIBLIOGRAPHY:

1. Directive 1999/45/CE and subsequent modifications.
2. Directive 67/548/CEE and subsequent modifications and amendments (annulled).
3. Regulation CE 1907/2006 of European Parliament (REACH).
4. Regulation CE 1272/2008 of European Parliament (CLP).
5. Regulation CE 790/2009 of European Parliament (I Atp. CLP).
6. Regulation CE 453/2010 of European Parliament (Safety Data Sheets)

Section 16: Other information

Other Special Considerations: Not available.

Created by: Judit Babcsan 18/09/2015

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