



MATERIAL SAFETY DATA SHEET

MSDS No.2013AES-1
Date of Issue: August, 2013

Bio-Soluble (AES) Fiber Products Series
Loose Bulk Wool, Blanket, Board

Part 1. PRODUCTS IDENTIFICATION

Material/Product Name:

Biomag™ Soluble Bulk,Blanket,Board,Paper,Module

Chemical family:

Alkaline earth silicate (AES) fiber wool

Synonyms:

man made vitreous fiber (MMVF), high temperature insulation wool (HTIW),amorphous mineral fiber wool (AMFW), Calcium – magnesium - silicate fiber (CMS), Synthetic vitreous fiber (SVF)

Manufacturer/Supplier:

Thermstrong Corporation
1295 Kaixuan Road,Shanghai,200052,China
Phone : +86-21-65668706
<http://www.thermstrong.com>

Part 2. INGREDIENTS AND COMPOSITION

Ingredient	CAS Number	% By weight
Alkaline-earth-silicate SiO ₂ 61-68 %, CaO 27-32%, MgO 2-6 %, trace elements ≤1.2%	436083-99-7	100

Part 3. HAZARDS IDENTIFICATION

None applicable chronic and possible health effects and no classification as the hazards materials

May trigger temporary mechanical irritation to skin,eyes and upper respiratory tract (nose, throat & lungs), but these irritation is temporary and not allergic reaction

Exposure to the fiber wool may cause moderate irritation to the eye

Touch with the skin will cause the skin irritation

Inhalation of airborne fiber will cause the upper respiratory tract

Well-equipped personal and industrial protective parts will greatly minimize the irritation and discomforts

Part 4. FIRST AID MEASURES

Eye contact:

Flush eyes immediately with large amounts of clean water, rubbing eyes is prohibited for the sake of irritation increase, keep the eyelid away from the ball and the rinse should be lasted for at least 15 minutes, If irritation persists, seek medical treatment

Skin contact:

Take off the soiled clothing immediately and wash contacted areas with soap and water, rub and scratch is prohibited for irritation increase, using a skin cream or lotion after washing maybe helpful

Inhalation:

Leave the construction site for the open area with fresh air, seek medical attention if the irritation continues

Gastrointestinal Irritation:

If gastrointestinal tract irritation develops, move the person to a dust free area

Notes to Physician:

Skin and respiratory effects are resulted from the temporary mechanical irritation, the exposure of fiber will not trigger the allergic manifestations

Part 5. FIRE FIGHTING MEASURES

Flammable Properties:	None.
Hazardous Decomposition Products:	None.
Flash Point:	None.
Fire and Explosion:	Non- combustible.
Extinguishing Media:	Use extinguishing media appropriate for type of surrounding fire.
Firefighting instructions:	Firefighters should wear positive pressure, self-contained breathing apparatus and full protective clothing

Part 6. ACCIDENTAL RELEASE MEASURES

Carefully avoid and minimize the airborne dust. For dusty conditions, use HEPA filtered vacuum equipment if available, it's also suitable to use a dust suppressant with sweeping; compressed air and dry sweeping are prohibited.

Wear approved respiratory protection, gloves, and goggles to prevent irritation from contact and inhalation, clean the materials regularly and keep well placed in the covered container

Part 7. HANDLING AND STORAGE

Precautions for Handling:

Handle fiber carefully to reduce the airborne dust and limit use of power tools on less in conjunction with local exhaust. Used hand tools whenever possible. Frequently clean the work area with HEPA filtered vacuum or wet sweeping to minimize the accumulation of debris, do not use compressed air for clean-up

Conditions for Storage:

This product is stable under all conditions of storage. Store in original containers in the dry place. Keep container closed when not in use.

Empty Containers:

Do not reuse the residue maybe contained in the package

Part 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits:

OSHA PEL:	Not Established
OSHA PNOR:	Total dust 15mg/m ₃ ; Respirable dust 5mg/m ₃
ACGIH TLV:	None established
ACGIH PNO:	Inhalable particulate 10mg/m ₃ Respirable dust 3mg/m ₃

Manufacturer's Recommendation:

Just like most industrial materials, it is prudent to reduce exposure to respirable dusts to the lowest possible level through the use of engineering controls such as ventilation and dust collection devices. Industrial hygiene standards and occupational exposure limits may vary between countries

and local jurisdictions. Contact your employer to determine which exposure levels apply to your facility. If no regulatory dust or other standards apply, a qualified industrial hygienist can assist with a specific workplace evaluation including recommendations for respiratory protection. In the absence of such guidance, the supplier recommends to control occupational AZS fiber exposure to 1 f/cc or less.

Engineering controls:

Use local exhaust ventilation, point of generation dust collection, downdraft workstations, emission controlling tool designs and materials handling equipment to effectively minimize exposures to respirable dust.

Personal Protective Equipment:

PPE-Skin Protection:

Wear gloves, long-sleeved, loose-fitting clothing, and eye protection with side shields to prevent skin irritation. If possible, don't take unwashed and soiled clothing to home, If soiled work clothing must be taken home, employers should ensure employees are trained on the best practices to minimize or avoid non work dust exposure, the washer should be thoroughly rinsed before washing clothes of other family members

PPE-Eye Protection:

Wear goggles or safety glasses with side shields in compliance with appropriate OSHA standards to prevent eye contact and prevent eye irritation, Do not touch eyes with soiled body parts or materials, the use of contact lenses is not recommended unless used in conjunction with appropriate eye protection

PPE-Respiratory Protection:

When it's insufficient to reduce the respirable dust exposure by effective engineering and/or administrative controls, the use of appropriate respiratory protection, in accordance with the requirements of OSHA 29 CFR 1910.134 and 29,CFR 1926.103, is recommended. For dust concentrations below the applicable exposure limit value, PPE is not required.

Part 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	white / blue in fiber wool type, odorless. Product forms include loose bulk, blanket, board, paper, module, textile
Vapor pressure:	Not applicable.
Vapor density:	Not applicable.
Boiling Point:	Not applicable
Melting Point:	1300 °C (2372 °F)
Bulk Weight (lbs/ft³)	4-10
Bulk Weight (kg/m³)	64-160
Water Solubility:	Slight
pH:	Not applicable
Evaporation rate:	Not applicable

Part 10. STABILITY AND REACTIVITY

Chemical Stability:

Stable under conditions of normal use.

Conditions to avoid:

None.

Hazardous Polymerization:

None

Chemical Incompatibilities:

Strong acids should be avoided

Hazardous Decomposition Products:

None

Part 11. TOXICOLOGICAL INFORMATION

Epidemiology:

This product has not been the subject of epidemiological study. Epidemiology studies related to other fiber chemistries of similar solubility have not identified a statistically significant incidence of exposure-related respiratory disease.

Toxicology:

AES wool has been tested for the bio persistence using methods devised by the European Union. The study results exonerate CMS wools from carcinogen classification under the criteria listed in Nota Q of

European Commission Directive 97/69/EU.

Part 12. ECOLOGICAL INFORMATION

No adverse ecological effects resulted from this product has been founded

Part 13. DISPOSAL INFORMATION

Waste Management:

Properly covered container and sealed bag are suitable for the wastes to preventing the airborne dusts, check the national and/or local regulations for apply on disposals

Disposal

The product is suitable for landfill disposal, anyway, debris generated during installation, maintenance or tear-out procedures may be contaminated with other hazardous materials. Therefore, appropriate waste analysis may be necessary to determine proper disposal. Thermstrong fiber wool, as manufactured, is not classified as a hazardous waste according to China regulations. Check local, regional, state or provisional regulations to identify all applicable disposal requirements and treatment methods.

Part 14. TRANSPORT INFORMATION

US Department of Transportation:

Hazard Class:	Not Regulated
Labels:	Not Applicable
Placards:	Not Applicable
UN Number:	Not Applicable
NA Number:	Not Applicable
Bill of Lading:	Product Name

International:

Canadian TDG Hazard Class & PIN: Not regulated

Not classified as dangerous goods under ADR (Road), RID (Train), IATA (air) or IMDG (ship).

Part 15. REGULATORY INFORMATION

United States Regulations:

SARA TITLE III:

This product does not contain any substances reportable under SARA Sections 302,304, and 313, (40 CFR 372). Sections 311 and 312 (40 CFR 370) apply (delayed hazard).

OSHA:

Comply with Hazard Communication Standard 29 CFR 1910.1200 and 29 CFR 1926.59. and the Respiratory Protection Standard 29 CFR 1910.134 and 29 CFR 1926.103.

TSCA:

AES fiber has been assigned a CAS number, it is an article under TSCA and exempt from listing on the TSCA inventory

CERCLA:

AES fiber with an average fiber diameter greater than one micron and thus is not considered a CERCLA hazardous waste

CAA:

AES fiber with an average fiber diameter greater than one micron and thus is not considered a hazardous air pollutant

STATES:

AES fiber is not known to be regulated by the States. If in doubt, contact your local regulatory agency

International Regulations

Canada WHMIS:

No Canadian Workplace Hazardous Materials Information System categories apply to this product

Canada CEPA:

All substances in this product are listed on the Domestic Substances List (DSL)

European Union:

AES fiber chemistry is exonerated from any carcinogenic classification in the countries of the European Union under the provisions of Nota Q of the European Commission Directive 97/69/EC

ACRONYMS:

ACGIH: American Conference of Governmental Industrial Hygienists
CERCLA: Comprehensive Environmental Response, Compensation & Liability Act
EPCRA: Emergency Planning and Community Right-to-Know Act of 1986
IARC: International Agency for Research on Cancer
NIOSH: National Institute for Occupational Safety and Health
NFPA: National Fire Protection Association
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration
PEL: Permissible Exposure Limit (OSHA)
PNOC: Particulate Not Otherwise Classified
PNOR: Particulate Not Otherwise Regulated
PSP: Product Stewardship Program
RCFC: Refractory Ceramic Fiber Coalition
REL: Recommended Exposure Limit (NIOSH)
SARA: Superfund Amendments and Reauthorization Act
TITLE III: Emergency Planning and Community Right To Know Act
TLV: Threshold Limit Values (ACGIH)
29 CFR1910.134: OSHA Respiratory Protection Standard

MSDS prepared by Thermstrong Coporation, Technical Department and HSE Specialist

DISCLAIMER:

The information presented herein is presented in good faith and believed to be accurate as of the effective date of this Material Safety Data Sheet. Employers may use this MSDS to supplement other information gathered by them in their efforts to assure the health and safety of their employees and the proper use of the product. This summary of the relevant data reflects professional judgment; employers should note that information perceived to be less relevant has not been included in this MSDS. Therefore, given the summary nature of this document, Thermstrong Corporation does not extend any warranty, assume any responsibility, or make any representation regarding the completeness of this information or its suitability for the purposes envisioned by the user.