Safety Data Sheet

In accordance with Commission Regulation (EU) No 453/2010 (REACH)

1. Identification

1.1 Product identifier: FIBRAN*geo*
Mineral Wool Insulation
REACH registration number: 01-2119472313-44-0034

1.2 Relevant identified uses of the product:

Thermal insulation, acoustic insulation, fire protection

1.3 Details of the supplier of the safety data sheet:

FIBRAN S.A.
Insulating material industry
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1.4 Emergency telephone number:

Fibran S.A. Technical Support Department Tel: +30 2310 682425 (Monday-Friday 08:30 – 16:00)

2. Hazards Identification

2.1 Classification of the substance or mixture:

In accordance to REACH legislation, FIBRANgeo is an article, and according to EU Regulation 1272/2008 on classification, labeling and packaging of substances and mixtures is not classified as dangerous.

2.2 Label Elements:

There are no hazardous classifications associated with mineral wool fibres in respect to physical, health and environmental considerations.

2.3 Other hazards:

2.3.1 Exposure to dust may be irritating to the eyes, nose and throat.

2.3.2 Acrid smoke may be generated during fire.

3. Composition / Information On Ingredients

Chemical description: Article. The product consists of mineral wool fibers to which binder has been added. The binder agent during hardening process turns into a thermally stable material (bakelite). Silicon is added to make the product water repellent and mineral oil to reduce the dust release.

Description	CAS number	EC number	content
Mineral Wool - Man-made vitreous (silicate) fibres with random orientation with alkaline and alkali earth oxides (Na2O+K2O+CaO+MgO+BaO) content greater than 18% by weight.	-	926-099-9	95 -100 %
Cured organic binding material	25104-55-6	-	0 - 5 %
Mineral oil and/or Silicon emulsion	-	-	Up to 0.5 %

4. First – Aid Measures

4.1 Description of first aid measures

4.1.1 Inhalation: If irritation occurs, remove the affected person to fresh air. Drink water and blow nose, to clear dust and fibers from throat and nose. If irritation persists, consult a physician.

4.1.2 Skin: if irritation occurs, do not rub or scratch. Rinse under running water and then wash with soap and water. Use a washcloth to help remove fibers. If irritation persists, consult a physician.

4.1.3 Eyes: If irritation occurs, flush eyes with plenty of water for at least 15 minutes. Do not rub the eyes. Consult a physician if irritation persists.

4.1.4 Ingestion: Ingestion of this product is unlikely to occur under normal conditions of use. If it does occur, rinse mouth wit plenty of water to help remove dust and fibers, and drink plenty of water to help reduce potential gastrointestinal irritation. Do not induce vomiting unless directed to do so by a physician.

4.2 Most important symptoms and effects, both acute and delayed

4.2.1 Inhalation: Temporary mechanical irritation of the upper respiratory track may result from exposure to dusts and fibers in excess of applicable exposure limits.

4.2.2 Skin contact: Dust and fibers may cause temporary mechanical irritation (itching) or redness to the skin.

4.2.3 Eye contact: Dust and fibers may cause temporary mechanical irritation (itching) or redness to the eyes.

4.2.4 Ingestion: Ingestion of this product is unlikely to occur under normal conditions of use. However ingestion of this product may cause gastrointestinal irritation

4.3 Indication of any immediate medical attention and special treatment needed

None required

5. Fire – Fighting Measures

5.1. Extinguishing media

5.1.1 Suitable extinguishing media: Water, foam, carbon dioxide or dry powder

5.1.2 Unsuitable extinguishing media: None

5.2 Special hazards arising from the substance or mixture:
The products are non-combustible and do not pose a fire hazard. However, packaging material may burn.

5.3 Advice for fire-fighters:
Observe normal fire fighting procedures

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures: No special requirements. It is recommended for comfort that long-legged, long-sleeved clothing and gloves are worn. Safety goggles may be worn if a lot of dust has been generated.

6.2 Environmental precautions: None required.

6.3 Methods and materials for containment and cleaning up: Pick up large pieces and scoop up dusts and fibers after they have settled out of air. Spray with water before sweeping or use vacuum equipment. Place the material in an appropriate container for disposal as non-hazardous waste.

6.4 Reference to other sections: Recommended personal protection equipment and waste disposal considerations are covered in sections 8 and 13.

7. Handling And Storage

7.1 Precautions for safe handling:
-Unpack material at application site to avoid unnecessary handling of product.
-Keep work areas clean. Avoid unnecessary handling of scrap material and debris by placing such materials in suitable containers.
-Ensure good ventilation. High-speed cutting tools should always be provided with mechanical exhaust.
-Avoid excessive eye and skin contact with dusts and fibers.
-Use recommended cleanup procedures to avoid buildup of dusts and fibers in the working area.
-Do not eat, drink or smoke in work areas.
-Wash hands after use rinsing under cold water before using soap. Change clothes and wash on completing work.

7.2 Conditions for safe storage, including any incompatibilities:
-Keep material in original packaging until it is to be used.
-Store material to protect against adverse weather conditions including precipitation.

7.3 Specific end use(s):
-None required.

8. Exposure Controls – Personal Protection

8.1 Control parameters:
According to 91/322 EEC and 96/94 EC directives, recommended exposure limits are 5 mg/m^3 for respirable particulate and 10 mg/m^3 for inert dust and particulates not otherwise regulated.

8.2 Exposure controls:

8.2.1 Appropriate engineering controls: None required.

8.2.2 Individual protection measures, such as personal protective equipment:

(a) Eye protection
With heavy dust development or when working with product above head height, the use of safety goggles is advised.

(b) Skin protection
Hand - It is recommended that gloves are worn for comfort.
Other- It is recommended for comfort that long-legged, long-sleeved work clothing is worn.Follow all applicable exposure limits. Where feasible, general dilution ventilation or local exhaust ventilation should be used as necessary to maintain exposures below applicable exposure limits. Dust collection systems should be used in cutting or machining operations.

(c) Respiratory protection
If dust level exceeds applicable exposure limits use disposable facemasks complying with standard EN149 FFP1 (such as a 3M model 9310 or equivalent).
When the product is first heated, binder starts a decomposition process in the temperature range 200^o - 250^o C. During this period, workers in the area should use a respiratory protection, which is effective in irritating gases such as ammonia. A strong degassing of binder (temperatures exceeding 250^o C) in a poor ventilated room can result in smarting of eyes and throat. In this case the use of a full mask respiratory protection is required. Even if decomposition products from burning of binder material can cause respiratory sensitisation, there are no recorded incidents of respiratory sensitisation from gases released from stone wool.
Where feasible, general dilution ventilation or local exhaust ventilation should be used as necessary to control exposure to fumes when high temperature appliances are first put into service.

The following text and pictograms are printed on packaging:

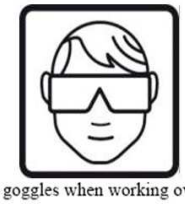
"*The mechanical effect of fibres in contact with skin may cause temporary itching*"


Ventilate working area if possible


Waste should be disposed of according to local regulations


Cover exposed skin. When working in unventilated area wear disposable face mask


Clean area using vacuum equipment


Wear goggles when working overhead


Rinse in cold water before washing

9. Physical And Chemical Properties

9.1 Information on basic physical and chemical properties

9.1.1	Appearance:	solid, grey – green
9.1.2	Odour:	may have slight resin odor
9.1.3	Odour threshold:	not applicable
9.1.4	pH:	6 – 9
9.1.5	Melting point:	above 1000^{o}C
9.1.6	Boiling point:	not applicable
9.1.7	Flash point:	not applicable
9.1.8	Evaporation rate:	not applicable
9.1.9	Flammability:	A1 non-combustible
9.1.10	Upper/lower flammability or explosive limits:	not applicable
9.1.11	Vapour pressure:	not applicable
9.1.12	Vapour density:	not applicable
9.1.13	Relative density:	not applicable
9.1.14	Solubility:	Insoluble in water
9.1.15	Partition coefficient: n-octanol/water:	not applicable
9.1.16	Auto-ignition temperature:	A1 non-combustible
9.1.17	Decomposition temperature:	When the product is approximately 200^{o}C, for the first time(s), binder starts to decompose
9.1.18	Viscosity:	not applicable
9.1.19	Explosive properties:	A1 non-combustible
9.1.20	Oxidizing properties:	not applicable

9.2 Other information: not available

10. Stability And Reactivity

10.1 Reactivity:	Not reactive.
10.2 Chemical stability:	Stable
10.3 Possibility of hazardous reactions:	Not reactive.
10.4 Conditions to avoid:	None specified.
10.5 Incompatible materials:	None specified.
10.6 Hazardous decomposition products:	When insulation wool is heated to approximately 200^{o}C for the first time(s), release of binder components and binder decomposition products occurs.

11. Toxicological Information*

11.1 Information on toxicological effects

a) Acute Toxicity: None

b) Irritation: Coarse fibers and dust from mineral wool products can cause temporary mechanical irritation (itching, redness) of the skin and of the mucous membranes in the eyes and in the upper respiratory track (nose and throat). The itching and possible inflammation is a mechanical reaction to dust and coarse fibers (more than 5 µm in diameter) and are not damaging in the way chemicals may be. They generally abate within a short time after the end of exposure.

c) Corrosivity: None

d) Sensitization: None

e) Repeated dose toxicity: None

f) Carcinogenicity: The possible carcinogenic effects of exposure to mineral fibers from FIBRAN's stonewool has been evaluated in Fraunhofer ITEM (Institut Toxikologie und Experimentelle Medizin) study Nr 02G03002, issued on 19/05/2003. In this study the biopersistence of the fiber was investigated after intratracheal installation in rats. This animal study was conducted in compliance with the Principles of Good Laboratory Practice (GLP). The treatment of the rats was performed in January 2003 by intratracheal instillation of a total dose of 2 mg per rat. The fiber retention data of sacrifice dates up to 3 months after instillation were used for analysis. Following halftimes were calculated by the method according to the protocol of the European Commission (ECB/TM 27 Rev. 7, 1998): Long fibers fraction (length>20 µm): < 40 days. According to Regulation 1272/2008/EC Note Q the classification as carcinogenic material is not applicable for mineral wools if the halftime for fibers longer than 20 µm is less than 40 days in the biopersistence test by intratracheal instillation.
In 2015 FIBRAN was completely perform and a second biopersistence test for a new recipe from a new quarry mineral. This second biopersistence test was also evaluated in Fraunhofer ITEM with study Nr 02G14022, issued on 03/03/2015. So, FIBRAN is able to produced mineral wool with two different chemical compositions, according to customer needs, both of them with biosolubility certification (not carcinogenic to humans).

g) Mutagenicity: None

h) Toxicity for reproduction: None

12. Ecological Information

12.1 Toxicity:	None
12.2 Persistence and degradability:	None
12.3 Bioaccumulative potential:	None
12.4 Mobilityin soil:	Not applicable
12.5 Result of PBT and vPvB Assessment:	Not applicable
12.6 Other adverse effects:	The thermal properties of FIBRAN's mineral wool relying on entrapped air and does not and never have used blowing agents with Ozone Depleting Potential or Global Warming Potential.

13. Disposal Considerations

13.1 Waste treatment methods: FIBRAN's stonewool product is recyclable. Stonewool is classified as non-hazardous waste. FIBRAN's insulation waste is covered by the non-hazardous entry "17 06 04 insulation materials other than those mentioned in 17 06 01 and 17 06 03" in the European Waste Catalogue, established by EC Decision 2000/532/EC (hazardous waste). Dispose of waste material according to State and Local environmental regulations.

14. Transport Information

14.1 UN number:	Not applicable.
14.2 UN proper shipping name:	Not applicable.

14.3 Transport hazard class (es): Not applicable.

14.4 Packing group: Not applicable.

14.5 Environmental hazards: Not applicable.

14.6 Special precautions for user: Not applicable.

15. Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

The overall conclusion in accordance with the REACH regulation is that there are no hazardous classifications associated with FIBRAN's fibres in respect to physical, health and environmental considerations.

15.2 Chemical safety assessment: Not applicable.

*16. Further Information**

Hazardous Waste Regulations
List of Wastes/ European Waste Catalogue (EWC)
Landfill Regulations
Health and Safety Executive Guidance Note EH40 – Occupational Exposure Limits

This Safety Data Sheet is in accordance with Commission Regulation (EU) 453/2010 Annex 2 (REACH).

The information contained herein is based upon data considered to be accurate. However, no warranty is expressed or implied regarding the accuracy of these data. As the user's working- conditions are beyond our knowledge and control, it is always the responsibility of the user to take all the necessary measures to fulfill the demand of security matters, laid down in national rules and legislation. The information in this SDS is meant as a description of the safety requirements for our product. It is not to be considering as a guaranty of the products properties.

Changes have been made to sections with a * mark, compared to the previous version.