SAFETY DATA SHEET

ReforceTech
Creating Greener Opportunities

MiniBarsTM - Basalt Fiber Reinforced Polymer BFRP

Revision date 26.03.2023

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier	
Trade name	MiniBarsTM - Basalt Fiber Reinforced Polymer BFRP
Revision date	26.03.2023
Replace MSDS of	19.09.2017
Version number	3.1
Brand name	MiniBarsTM
1.2 Relevant identified uses of the substance or mixture and uses advised against	
Uses of the chemical	Basalt Fiber Reinforced, non-metallic reinforcing for concrete. Industrial and professional use.
Uses advised against	Not recommended for purposes other than the uses for which the product is intended.
1.3 Details of the supplier of the safety data sheet	
Company/undertaking identification	ReforceTech AS Luftveien 4 3440 Røyken Norway Phone: +47 971 70 670 http://www.reforcetech.com
E-mail	reforcetech@reforcetech.com
Responsible person	ReforceTech AS
Author	Sensor Chemcontrol AS - Jens Krotseng
1.4 Emergency telephone number	**Poison Information Centre: +47 22 59 13 00.**

SECTION 2: HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture	
Classification according to 1272/2008EC	The substance or the mixture does not meet the criteria for classification in accordance with Regulation (EC) No 1272/2008.
2.2 Label elements	
2.3 Other hazards	The chemical does not contain endocrine disruptors above 0.1%, according to (EU) 2017/2100 or (EU) 2018/605. REACH Annex XIII regulations regarding PBT or vPvB substances is not applicable for the product.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Ingredients	Identification	Classification	Note	Weight%
Basalt fibres			Z	82
Hardened vinyl ester			Z	18
Nuisance dust, total dust			Æ	

Explanation	
Ingredients comments	All concentrations are listed as weight percent.

The classification applies to each substance, not the product.

Note Z: Although the component are not classified as dangerous according to Regulation (EC) No 1272/2008, it provides valuable information to the product composition.

Note Æ: The substance has an occupational exposure limit (OEL) or DNEL (Derived No Effect Level) values, see section 8 for more information.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures	
Inhalation	Fresh air, warmth and rest, preferably in a comfortable, half-sitting position. Keep respiratory tract open.
Skin contact	If skin irritation persists: Get medical advice/attention.
Eye contact	Rinse thoroughly with plenty of water. Irritation can occur through mecanical influence. If eye irritation persists: Get medical advice/attention.
Ingestion	Give something to drink, such as water, milk or juice. Do not induce vomiting. Call a poison centre for a risk assessment.
4.2 Most important symptoms and effects, both acute and delayed	Not known
4.3 Indication of any immediate medical attention and special treatment needed	By accident or malaise, consult a doctor immediately. Show label, instructions or the MSDS.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media	
Suitable extinguishing media	Water spray, foam, CO2 or powder.
Extinguishing media which shall not be used	Avoid using directed water jets during extinguishing work.
5.2 Special hazards arising from the substance or mixture	Not known
5.3 Advice for firefighters	Firefighters should use standard protective flame resistant jacket, helmet with face shield, gloves, rubber boots and self-contained breathing apparatus in confined areas.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures	It is recommended to use work gloves (preferably with long cuffs) that provide sufficient mechanical protection.
6.2 Environmental precautions	Avoid release to the environment;.
6.3 Methods and material for containment and cleaning up	Sweep together and collect.
6.4 Reference to other sections	See section 7 for information on safe handling. See section 8 for information on personal protection equipment. See section 12 for information on ecology. See section 13 for waste disposal.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling	Use suitable and approved protective equipment, see section 8 for more information. Handle in accordance with good hygiene and safety practice. Operating instructions should be followed to ensure safe use and best results. Do not handle in such a way that dust is formed.
7.2 Conditions for safe storage, including any incompatibilities	Keep in original packaging. Store in a dry place, and in closed packaging. The product is flammable and should not be exposed to open flames.
7.3 Specific end use(s)	Basalt Fiber Reinforced non-metallic reinforcing for concrete. Industrial and professional use.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

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8.1 Control parameters

Ingredients	EC nr	CAS nr	8 hour mg/m3	8 hour ppm	Short mg/m3	Short ppm	Ref.	Note	Year
Nuisance dust, total dust			10				Norsk	21	2023

Limit values notes

Reference Norw: Measures and limit values for acceptable pollutants in the working atmosphere. Obtained from the norwegian regulation "Forskrift om tiltaks- og grenseverdier".

Footnote 21: The threshold value applies to total dust, which include all dust particles in the air.

The basalt fibers used in production are made in a standardized process and have a nominal diameter of 10 - 19 micrometres. Dust fibers emitted during cutting have a diameter of 10 - 15 micrometres and a length of between 20 - 80 micrometres.

The basalt fibers in the product are uniform and do not fall under the definition of MMMF (Man Made Mineral Fibres).

8.2 Exposure controls

Exposure controls	Common sense and safety precautions should always be used when handling chemicals. Ensure that all containers are properly labeled to prevent accidental exposure or improper use. Ensure good working hygiene. Make use of recommended safety equipment. Provide adequate exhaust ventilation, or ventilation in the workplace. Avoid contact with eyes and skin.
Respiration protection	In the case where processing or handling the product is generates dust, it is recommended to use the following: Full or half mask with dust and particle filter against particles and dust class 2, type P2 with filter color white; according to standard (NS-EN-143), or fresh air positive pressure mask according to standard (NS-EN-137, NS-EN-270). No exposure is likely due to the physical condition of the product. Respiratory protection must be used if air contamination exceeds occupational exposure levels.
Eye protection	Wear safety goggles if there is a risk of dust into the eyes. Eye protection shall be in accordance to EN 166 standard.
Hand protection	Protective gloves made of natural latex, nitrile, neoprene, PVA, butyl or PVC with a glove thickness of more than 0.1 mm according to standard EN-374. For continuous contact: Gloves with a penetration time of more than 480 minutes. For short-term splashes/exposure (up to 10 minutes): Penetration time over 20 minutes;.
Skin protection	Not required under normal use of the product.
Additional information	It is good industrial hygiene practices to avoid skin contact as much as possible. Do not wear rings, watches, etc, which are suitable for keeping the product and thereby cause skin reactions. Barrier creams may help to protect exposed skin, but can not substitute for gloves.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Physical state	Solid
b) Colour	Black
c) Odour	No odor
d) Melting point/freezing point	1450 °C (Basalt)
e) Boiling point or initial boiling point and boiling range	Not relevant due to the form or condition of the chemical.
f) Flammability	The product is flammable
g) Lower and upper explosion limit	Not relevant - solid
h) Flash point	480 °C.
i) Auto-ignition temperature	Not self-igniting
j) Decomposition temperature	Not known
k) pH	Not applicable - form is solid
l) Kinematic viscosity	Not relevant (solid)
m) Solubility	0 % (Non soluble)

n) Partition coefficient	Not relevant because of the form or condition of the chemical.
o) Vapour pressure	Not relevant due to the form or condition of the chemical.
p) Density and/or relative density	2.1
q) Relative vapour density	The product is a non-volatile solid.
r) Particle characteristics	Not known
9.2 Other information	The physical and chemical properties specified in section 9.1 applies to the product and not to the individual ingredients or propellent gas, unless otherwise stated.
Relative evaporation rate	The product is a non-volatile solid.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	Stable under normal conditions.
10.2 Chemical stability	Stable under normal conditions.
10.3 Possibility of hazardous reactions	Not known
10.4 Conditions to avoid	Avoid temperatures above 400 °C. Avoid exposure to heat or open flame.
10.5 Incompatible materials	Not known
10.6 Hazardous decomposition products	No decomposition during normal storage.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008	
a) Acute toxicity	Based on available data, the classification criteria are not met.
b) Skin corrosion/irritation	Based on available data, the classification criteria are not met.
c) Serious eye damage/ irritation	Based on available data, the classification criteria are not met.
d) Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
e) Germ cell mutagenicity	Based on available data, the classification criteria are not met.
f) Carcinogenicity	Based on available data, the classification criteria are not met.
g) Reproductive toxicity	Based on available data, the classification criteria are not met.
h) STOT-single exposure	Based on available data, the classification criteria are not met.
i) STOT-repeated exposure	Based on available data, the classification criteria are not met.
j) Aspiration hazard	Based on available data, the classification criteria are not met.
11.2. Information on other hazards	Probable route of exposure: Skin contact.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity	No eco-toxic effect known. No harmful long-term effects are expected on aquatic organisms.
12.2 Persistence and degradability	The product is not biologically degradable.
12.3 Bioaccumulative potential	Bioaccumulation is unlikely.
12.4 Mobility in soil	Not known
12.5 Results of PBT and vPvB assessment	Not relevant for inorganic substances. The chemical does not meet the criteria for PBT or vPvB in accordance with REACH Annex XIII.
12.6 Endocrine disrupting properties	The chemical does not contain endocrine disruptors above 0.1%, according to (EU) 2017/2100 or (EU) 2018/605.
12.7 Other adverse effects	Not known

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods	

Disposal group	EWC code assessed by the end user, if necessary EWC: 16 01 99 wastes not otherwise specified. EWC code assigned by the user based on the application of the product. The EWC code are for illustrative purposes only. Always check the waste codes in view of the current state the product is in. The final waste groups and tags must be determined by the user, based on the actual use of the product.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number or ID number	n/a
14.2 UN proper shipping name	n/a
14.3 Transport hazard class(es)	
ADR/RID class	n/a
14.4 Packing group	n/a
14.5 Environmental hazards	n/a
14.6 Special precautions for user	n/a
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	n/a
Additional information	The product is not subject to international regulations on the transport of dangerous goods (IMDG, IATA, ADR / RID).

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/ legislation specific for the substance or mixture	Norwegian Regulations: "FOR-2012-06-16-622 Forskrift om klassifisering, merking og emballering av stoffer og stoffblandinger (CLP)". COMMISSION DELEGATED REGULATION (EU) 2020/217 of 4 October 2019 (ATP14). REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). ADR/RID Regulations on land transport of dangerous goods 2019. COMMISSION DIRECTIVE (EU) 2017/164 of 31 January 2017 establishing a fourth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 91/322/EEC, 2000/39/EC and 2009/161/EU FOR 2004-06-01 nr 922: Norwegian regulations on the restriction of use of hazardous chemicals and other products "produktforskriften". ECHA (European Chemicals Agency) C&L Inventory database. DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives. European Waste Catalogue and Hazardous Waste List Valid from 1 January 2002. FOR-2015-05-19-541 Forskrift om deklarering av kjemikalier til produktregisteret (norwegian regulation for product declaration).
15.2 Chemical safety assessment	The information in this safety data sheet should not be regarded as the user's own risk assessment. It is always the user's responsibility to take all necessary steps in order to meet the requirements of the local rules and regulations.
Additional information	Classification of this product is given on the basis of the available information from the vendor.

SECTION 16: OTHER INFORMATION

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Key literature references and sources for data	Material safety data sheet from the supplier.
Abbreviations in the document	n/a - No relevant information. EWC - European Waste Catalogue codes. vPvB - very Persistent and very Bioaccumulative (require special attention under REACH). PBT - Persistent, Bioaccumulative and Toxic. LC50 - The concentration of a chemical in air or water as for a particular group of experimental animals which leads to more than 50% deaths over a given period of time. LD50 - The amount of a chemical given to a particular group of experimental animals that leads to deaths of 50%. STOT - Toxic effect on certain organs. bw/day - body weight / day
First released	15.09.2015
Additional information	Revised and quality controlled by: Sensor Chemcontrol AS Storgata 30 3611 Kongsberg Norway Tlf: +47 32 77 06 60 E-mail: helpdesk@sensor.as URL: www.sensor.as.

--- SAFETY DATA SHEET conforming to commission regulation (EC) 1272/2008 and (EU) 2020/878 ---