

SAFETY DATA SHEET

Biochar

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name: Biochar

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses of the substance or mixture: Soil improvement, animal feed, replacing fossil carbon, filtration, soil remediation, etc.

Uses advised against: None known.

1.3. Details of the supplier of the safety data sheet

Company and address: **Meva Energy AB**
Backa Bergögata 18
SE-422 46 Hisings Backa
Sverige
+46 31-84 70 70
<https://mevaenergy.com>

Contact person: Meva Energy AB

E-mail: info@mevaenergy.com

Revision: 18/11/2024

SDS Version: 1.1

Date of previous version: 14/11/2024 (1.0)

1.4. Emergency telephone number

In urgent situations: Call 112 and request the poison information centre. (24h service)

In less severe situations: Call 010-456 6700 (24h service)

See also section 4 "First aid measures".

SECTION 2: Hazards identification

Classified according to Regulation (EC) No. 1272/2008 (CLP).

2.1. Classification of the substance or mixture

Self-heat. 2; H252, Self-heating in large quantities; may catch fire.

The classification Self-heat. 2; H252 applies to packages >3 m³.

2.2. Label elements

The labelling applies to packages >3 m³.

Hazard pictogram(s):



Signal word: Warning

Hazard statement(s): Self-heating in large quantities; may catch fire. (H252)

Precautionary statement(s):

General: Keep out of reach of children. (P102)

Prevention: Keep cool. (P235)

Response: -

Storage: Maintain air gap between stacks or pallets. (P407)
Store separately. (P420)

Disposal: -

Hazardous substances: None known.

Additional labelling: Not applicable.

2.3. Other hazards

During handling and/or in use this material can cause dust which may cause mechanical irritation of the eyes, skin, nose and throat.

Additional warnings: This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

This product does not contain any substances considered to be endocrine disruptors in

accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2023/707.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable. This product is a mixture.

3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
Biochar	CAS No.: 16291-96-6 EC No.: 240-383-3 REACH: Index No.:	70-95%		
Water	CAS No.: 7732-18-5 EC No.: 231-791-2 REACH: Index No.:	5-30%		
Ashes (residues)	CAS No.: 68131-74-8 EC No.: 268-627-4 REACH: Index No.:	<10%	Eye Irrit. 2, H319	[19]

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

The product has been tested according to UN RTDG, Manual of Tests and Criteria, section 33.4.

[19] UVCB = Unknown or variable composition, complex reaction products or of biological materials

SECTION 4: First aid measures

4.1. Description of first aid measures

General information: In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet.
Contact a doctor if in doubt about the injured person's condition or if the symptoms persist.
Never give an unconscious person water or other drink.

Inhalation: Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

Skin contact: Ensure to wash exposed skin thoroughly with water and soap.

Eye contact: If in eyes: Flush eyes with water or saline water (20-30 °C) for at least 5 minutes. Remove contact lenses. Seek medical assistance and continue flushing during transport.

Ingestion: IF SWALLOWED: Rinse mouth. Give something to drink, if exposed person is able to swallow. Do NOT induce vomiting. Call a POISON CENTRE or a doctor.

Burns: Rinse with water until pain stops then continue to rinse for 30 minutes.

4.2. Most important symptoms and effects, both acute and delayed

During handling and/or in use this material can cause dust which may cause mechanical irritation of the eyes, skin, nose and throat.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are

exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Storages not yet ignited must be cooled by water mist. Remove flammable materials if conditions allow it. Ensure sufficient ventilation.

Ensure adequate ventilation, especially in confined areas.

Contaminated areas may be slippery.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.

Keep unauthorized persons away from the spill

6.3. Methods and material for containment and cleaning up

Limit spillage and collect using granular absorbent or similar materials, and dispose of it in accordance with the regulations on dangerous waste.

Limit spillage, sweep up and shovel into appropriate containers for disposal. Store in suitable, closed containers for disposal.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

During storage and handling, it must be ensured that a problematic rise in temperature due to internal friction is excluded as far as possible.

Smoking, drinking and consumption of food is not allowed in the work area.

Storage in the open is not recommended.

See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Must be stored in a cool and well-ventilated area, away from possible sources of ignition.

Self-igniting substances must be stored separately from other explosive, oxidising and flammable substances and protected against the spread of fire.

Recommended storage material: Dustproof packaging.

Storage conditions: Dry, cool and well ventilated

Incompatible materials: Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Dust, carbon incl. carbon black - inhalable fraction

Long term exposure limit (8 hours) (mg/m³): 3

Occupational exposure limits (AFS 2018:1) and later amendment AFS 2020:6 and AFS 2021:3.

DNEL

No data available.

PNEC

No data available.

8.2. Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations: At or near workplaces, self-igniting substances may only be stored in an amount that is absolutely necessary for the work to proceed.

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios:	There are no exposure scenarios implemented for this product.
Exposure limits:	Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.
Appropriate technical measures:	Apply standard precautions during use of the product. Avoid inhalation of gas or dust. Airborne gas and dust concentrations must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure emergency eyewash and showers are clearly marked.
Hygiene measures:	In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Pay special attention to hands, forearms and face.
Measures to avoid environmental exposure:	No specific requirements.

Individual protection measures, such as personal protective equipment

Generally: Use only CE marked protective equipment.

Respiratory Equipment:

Work situation	Type	Class	Colour	Standards
When there is risk of dust formation	Particle filter FFP2			EN 149

Skin protection:

Recommended	Type/Category	Standards
No special when used as intended.	-	-

Hand protection:

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards
Wear appropriate work gloves for protection against mechanical irritation.			STANDARD EN 420:2003 / EN 388:2003 / EN 388:2016



Eye protection:

Work situation	Type	Standards
When there is risk of dust formation	Safety glasses	EN166



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Solid
Colour:	Black
Odour / Odour threshold:	No relevant or available data due to the nature of the product.
pH:	No relevant or available data due to the nature of the product.
Density (g/cm³):	No relevant or available data due to the nature of the product.
Kinematic viscosity:	Does not apply to solids.
Particle characteristics:	No relevant or available data due to the nature of the product.

Phase changes

Melting point/Freezing point (°C):	No relevant or available data due to the nature of the product.
Softening point/range (°C):	Does not apply to solids.
Boiling point (°C):	Does not apply to solids.
Vapour pressure:	No relevant or available data due to the nature of the product.
Relative vapour density:	Does not apply to solids.
Decomposition temperature (°C):	No relevant or available data due to the nature of the product.

Data on fire and explosion hazards

Flash point (°C):	Does not apply to solids.
Flammability (°C):	The material is ignitable.

Auto-ignition temperature (°C): Not applicable. Self-heating: may catch fire.

Lower and upper explosion limit (% v/v): Does not apply to solids.

Solubility

Solubility in water: No relevant or available data due to the nature of the product.

n-octanol/water coefficient (LogKow): No relevant or available data due to the nature of the product.

Solubility in fat (g/L): No relevant or available data due to the nature of the product.

9.2. Other information

Other physical and chemical parameters: No data available.

Oxidizing properties: No relevant or available data due to the nature of the product.

SECTION 10: Stability and reactivity

10.1. ▼ Reactivity

Self-heating: may catch fire.
Applies to packages >3 m³.

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Avoid static electricity.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Based on available data, the classification criteria are not met.

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Serious eye damage/irritation

Product/substance	Ashes (residues)
Result:	Adverse effect observed (Irritating)

Respiratory sensitisation

Based on available data, the classification criteria are not met.

Skin sensitisation

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2. Information on other hazards

Long term effects

None known.

Endocrine disrupting properties

This mixture/product does not contain any substances known to have hormone-disrupting properties in relation to health.

Other information

None known.

SECTION 12: Ecological information

12.1. Toxicity

No data available.

12.2. Persistence and degradability

Based on available data, the classification criteria are not met.

12.3. Bioaccumulative potential

Based on available data, the classification criteria are not met.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

12.6. Endocrine disrupting properties

This mixture/product does not contain any substances considered to have endocrine-disrupting properties in relation to the environment.

12.7. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. ▼Waste treatment methods

Applies to packages >3 m³.

Product is covered by the regulations on hazardous waste.

HP 3 - Flammable



Waste regulation (SFS 2020:614).

EWC code: Not applicable.

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
ADR	UN3088	SELF-HEATING SOLID, ORGANIC, N.O.S. (Biochar)	Transport hazard class: 4.2 Label: 4.2 Classification code: S2 	III	No	Limited quantities: 0 Tunnel restriction code: (E) See below for additional information.
IMDG	UN3088	SELF-HEATING SOLID, ORGANIC, N.O.S. (Biochar)	Transport hazard class: 4.2 Label: 4.2 Classification code: S2 	III	No	Limited quantities: 0 EmS: F-A S-J See below for additional information.
IATA	UN3088	SELF-HEATING SOLID, ORGANIC, N.O.S. (Biochar)	Transport hazard class: 4.2 Label: 4.2 Classification code: S2	III	No	See below for additional information.

14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
-----------------	---------------------------------	--------------------------	-------------	---------------	-----------------------



* Packing group

** Environmental hazards

Additional information

The classification in class 4.2 applies to packages >3 m³.

This product is within scope of the regulations of transport of dangerous goods.

ADR / See Table A, section 3.2.1 for any information on special provisions, requirements, or warnings in connection with transport. See section 5.4.3, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.

IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.

IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.

14.6. Special precautions for user

Not applicable.

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15: Regulatory information

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

Restrictions for application: No special.

Demands for specific education: No specific requirements.

SEVESO - Categories / dangerous substances: Not applicable.

Additional information: Not applicable.

Sources: Waste regulation (SFS 2020:614).
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 (CLP).
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

H319, Causes serious eye irritation.

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CE = Conformité Européenne (European conformity)

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CSA = Chemical Safety Assessment

CSR = Chemical Safety Report

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EINECS = European Inventory of Existing Commercial chemical Substances

ES = Exposure Scenario

EUH statement = CLP-specific Hazard statement

EuPCS = European Product Categorisation System

EWG = European Waste Catalogue

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

GWP = Global warming potential

IARC = International Agency for Research on Cancer (IARC)
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
OECD = Organisation for Economic Co-operation and Development
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SCL = A specific concentration limit
SVHC = Substances of Very High Concern
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
STOT-SE = Specific Target Organ Toxicity - Single Exposure
TWA = Time weighted average
UN = United Nations
UVBC = Unknown or variable composition, complex reaction products or of biological materials
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative

Additional information

The classification of the mixture in regard to physical hazards has been based on experimental data.

The safety data sheet is validated by

EcoOnline Regulatory Affairs

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.
The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.
It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.
Country-language: SE-en