

**DENNERLE**

Safety Data Sheet according to Regulation (EC)

No. 1907/2006 (REACH)

Printed 01.08.2017

revision 01.08.2017 (GB) Version 2.1

Carbo Booster Max**! SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier****Name of product**

Carbo Booster Max

1.2. Relevant identified uses of the substance or mixture and uses advised against**Recommended intended purpose(s)**

Liquid carbon fertiliser to promote the growth of aquarium plants.

1.3. Details of the supplier of the safety data sheet**Manufacturer/distributor**

Dennerle GmbH

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Advice

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E-mail (competent person):

c.gretenkord@dennerle.de

1.4. Emergency telephone number**Emergency advice**

Giftnotruf Berlin / POISON CENTER BERLIN / in case of poisoning

Phone +49(0)30-30686 790

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]**

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
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Acute Tox. 4	H332
Skin Irrit. 2	H315
Eye Irrit. 2	H319
Resp. Sens. 1	H334
Skin Sens. 1B	H317
STOT SE 3	H335

! Hazard statements for health hazards

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.

2.2. Label elements**Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]**

GHS07



GHS08

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Carbo Booster Max**Signal word****Danger****! Hazard statements for health hazards**

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.

Precautionary Statements**General**

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.

Prevention

P261	Avoid breathing mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection.

Response

P302 + P352	IF ON SKIN: Wash with plenty of water.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P311	Call a POISON CENTER/doctor.

Storage

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal

P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
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Hazardous ingredients for labeling

glutaraldehyde

2.3. Other hazards**Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition/ information on ingredients**3.1. Substances**

not applicable

3.2. Mixtures**Description**

Mixture of the following substances with non-hazardous admixtures.

Hazardous ingredients

CAS No	EC No	Name	[%]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
111-30-8	203-856-5	glutaraldehyde	1,9	Acute Tox. 2, H330 / Acute Tox. 3, H301 / Skin Corr. 1B, H314 / Resp. Sens. 1, H334 / Skin Sens. 1A, H317 / Aquatic Acute 1, H400 / Aquatic Chronic 2, H411

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Carbo Booster Max**REACH**

CAS No	Name	REACH registration number
111-30-8	glutaraldehyde	01-2119455549-26

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

Remove contaminated soaked clothing immediately.

In case of inhalation

Ensure of fresh air.

Consult physician in the event of continuous problems

In case of skin contact

In case of contact with skin wash off immediately with soap and water.

Refer for medical treatment.

In case of eye contact

In case of contact with eyes rinse thoroughly with plenty of water (at least 15 minutes) and seek medical advice.

In case of ingestion

Rinse mouth immediately and drink plenty of water.

Do not induce vomiting.

Call for a doctor immediately.

Give plenty of water to drink in small sips.

4.2. Most important symptoms and effects, both acute and delayed**Physician's information / possible symptoms**

Allergic symptoms

4.3. Indication of any immediate medical attention and special treatment needed**Treatment (Advice to doctor)**

Treat symptoms.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Product does not burn, fire-extinguishing activities according to surrounding.

5.2. Special hazards arising from the substance or mixture

In case of fire formation of dangerous gases possible.

5.3. Advice for firefighters**Special protective equipment for fire-fighters**

Use breathing apparatus with independent air supply.

Additional information

Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Avoid skin and eye contact

Use personal protective clothing.

Observe usual precautionary measures for handling chemicals.

For emergency responders

Avoid skin and eye contact

Use personal protective clothing.

Keep away unprotected persons

Use breathing apparatus if exposed to vapours/aerosol.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up

Take up with absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr).

Take up mechanically and send for disposal.

6.4. Reference to other sections

Safe handling: see section 7

Disposal: see section 13

Personal protection equipment: see section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Provide for appropriate ventilation/aspiration at the work station.

General protective measures

Avoid contact with eyes and skin

Do not inhale gases/vapours/aerosols.

Hygiene measures

At work do not eat, drink and smoke.

Keep away from food and drink.

Wash hands before breaks and after work.

Advice on protection against fire and explosion

No special measures necessary.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep in closed original container.

Advice on storage compatibility

Do not store together with animal feedstuffs.

Do not store together with food.

Further information on storage conditions

Keep container tightly closed, open and handle carefully.

Protect from frost.

Protect from heat and direct solar radiation.

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Carbo Booster Max**7.3. Specific end use(s)****Recommendation(s) for intended use**

See section 1.2

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Ingredients with occupational exposure limits to be monitored**

CAS No	Name	Code	[mg/m3]	[ppm]	Remark
111-30-8	Glutaraldehyde	8 hours	0.2	0.05	EH40/2005
		Short-term	0.2	0.05	

8.2. Exposure controls**Respiratory protection**

Breathing apparatus in the event of aerosol or mist formation.

Breathing apparatus in the event of high concentrations.

Short term: filter apparatus, filter A

Hand protection

Glove material specification [make/type, thickness, permeation time/life, wetting resistance]: Butylkautschuk; 0,7mm; 480min; 60 min; z.B. "Butaject 898" from the company KCL, Email: Vertrieb@kcl.de

Glove material specification [make/type, thickness, permeation time/life, wetting resistance]: Viton; 0,7mm; 480min; 60min; z.B. "Vitoject 890" from the company KCL, Email: Vertrieb@kcl.de

Glove material specification [make/type, thickness, permeation time/life, wetting resistance]: Nitrile 0,4mm, 60 min, 480 min.

The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN374.

The selection of a suitable glove depends and from manufacturer to manufacturer different not only on the material, but also on further quality criteria.

The exact breakthrough time of the glove material is to be inquired from the protection glove manufacturer and must be strictly adhered to.

Eye protection

safety goggles

Other protection measures

Protective clothing

Appropriate engineering controls

If not sufficient in order to keep workplace concentrations under statutory maximum workplace concentrations (AGW limit values), a suitable respiratory protective device must be worn.

Sufficient ventilation and exhaustion.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties****Appearance**

liquid

Colour

dark violet

Odour

aromatic

Odour threshold

not determined

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	ca. 4				

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	Value	Temperature	at	Method	Remark
Boiling temperature / boiling range	not determined				
Melting point / Freezing point	not determined				
Flash point	not determined				
Vapourisation rate	not determined				
Flammable (solid)	not determined				
Flammability (gas)	not determined				
Ignition temperature	not determined				
Self ignition temperature	not determined				
Lower explosion limit	not determined				
Upper explosion limit	not determined				
Vapour pressure	not determined				
Relative density	ca. 1	20 °C			
Vapour density	not determined				
Solubility in water					multimiscible
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	not determined				
Decomposition temperature	not determined				
Viscosity	not determined				
Solids content	< 1 %				
Oxidising properties	No information available.				
Explosive properties	No information available.				
9.2. Other information	no				

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SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

No information available.

10.3. Possibility of hazardous reactions

No information available.

10.4. Conditions to avoid

Protect from frost.

Protect against heat and direct sunlight.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

Thermal decomposition

Remark No decomposition if used as directed.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity/Irritation/Sensitization

	Value/Validation	Species	Method	Remark
LD50 acute oral	200 mg/kg	rat		glutaraldehyde
LD50 acute dermal	> 2000 mg/kg	rabbit		glutaraldehyde
LC50 acute inhalation	0,28 - 0,39 mg/l (4 h)	rat		glutaraldehyde
Skin irritation	irritant			
Eye irritation	irritant			
Skin sensitization	Possibility of sensitization			
Sensitization respiratory system	Possibility of sensitization			

Subacute Toxicity - Carcinogenicity

	Value	Species	Method	Validation
Mutagenicity				not mutagenic
Reproduction-Toxicity				not toxic for reproduction
Carcinogenicity				not cancerogenic

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Carbo Booster Max**Specific target organ toxicity (single exposure)**

May cause respiratory irritation.

Specific target organ toxicity (repeated exposure)

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

No classification in relation to aspiration toxicity

SECTION 12: Ecological information**12.1. Toxicity****Ecotoxicological effects**

	Value	Species	Method	Validation
Fish	LC50 10 mg/l (96 h)	Oncorhynchus mykiss		glutaraldehyde
Daphnia	NOEC 5 mg/l (21 d)	Daphnia magna		glutaraldehyde
Algae	NOEC 0,05 mg/l (72 h)	Grünalge		glutaraldehyde

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects**General regulation**

Do not allow uncontrolled leakage of product into the environment.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Recommendations for the product**

Disposal in accordance with local regulations.

Recommendations for packaging

Disposal in accordance with local regulations.

General information

The waste code must be allocated in compliance with the EAK-regulation referring to the specific process and the sector.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA-DGR
14.1. UN number	-	-	-
14.2. UN proper shipping name	-	-	-

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	ADR/RID	IMDG	IATA-DGR
14.3. Transport hazard class(es)	-	-	-
14.4. Packing group	-	-	-
14.5. Environmental hazards	-	-	-
14.6. Special precautions for user No information available.			
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No data available			
Transport/further information No dangerous goods as defined by the transport regulations - ADR/RID, IMDG, ICAO/IATA-DGR.			

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

No information available.

15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

! SECTION 16: Other information**Recommended uses and restrictions**

National and local regulations concerning chemicals shall be observed.

Further informationAbbreviations and acronyms see overview table at www.euphrac.eu

The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

This material safety data sheet has been dressed up by: eska Ingenieurgesellschaft mbH - D-22767 Hamburg, Tel: +49 40-30 68 17 0, Email: service@eska.eu

Please observe the following disclaimer! --- Our safety data sheets have been compiled according to effective EU-directives, WITHOUT taking into account the special national directives concerning the handling of hazardous substances.

Each user is responsible for the implementation of the national special regulations.

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 2.0

Sources of key data used

Data sheets of the sub-supplier.

ECHA (European Chemical Agency)

H301	Toxic if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H330	Fatal if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.