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BRENNTAG

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

SMALL CHLORINE TABLETS (BORIC FREE)

Version 2.1 Print Date 2018/01/25

Revision date / valid from 2018/01/25 **MSDS code: MAAE210**

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

1.1. Product identifier

Trade name : SMALL CHLORINE TABLETS (BORIC FREE)

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

Use of the Substance/Mixture : At this time we do not yet have information on identified uses. They will be included in this safety data sheet when available.

Uses advised against : At this moment we have not identified any uses advised against

1.3. Details of the supplier of the safety data sheet

Company : Brenntag UK Limited
Alpha House, Lawnswood Business Park
GB LS16 6QY Leeds
Telephone : +44 (0) 113 3879 200
Telefax : +44 (0) 113 3879 280
E-mail address : msds@brenntag.co.uk

1.4. Emergency telephone number

Emergency telephone number : Emergency only telephone number (open 24 hours): +44 (0) 1865 407333 (N.C.E.C. Culham)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

REGULATION (EC) No 1272/2008			
Hazard class	**Hazard category**	**Target Organs**	**Hazard statements**
Oxidizing solids	Category 2	---	H272
Acute toxicity (Oral)	Category 4	---	H302
Eye irritation	Category 2	---	H319
Specific target organ toxicity - single exposure	Category 3	---	H335

Acute aquatic toxicity	Category 1	---	H400
Chronic aquatic toxicity	Category 1	---	H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

Most important adverse effects

Human Health : See section 11 for toxicological information.

Physical and chemical hazards : See section 9/10 for physicochemical information.

Potential environmental effects : See section 12 for environmental information.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard symbols :

Signal word : Danger

Hazard statements :

H272	May intensify fire; oxidizer.
H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention :

P220	Keep away from clothing and other combustible materials.
P261	Avoid breathing dust.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P233	Keep container tightly closed.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Response :

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/ attention.

		P301 + P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
Storage	:	P403	Store in a well-ventilated place.

Additional Labelling:

EUH031 Contact with acids liberates toxic gas.

Hazardous components which must be listed on the label:

• symclosene

2.3. Other hazards

For Results of PBT and vPvB assessment see section 12.5.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components	Amount [%]	Classification (REGULATION (EC) No 1272/2008)	
		Hazard class / Hazard category	Hazard statements
symclosene			
Index-No. : 613-031-00-5 CAS-No. : 87-90-1 EC-No. : 201-782-8	>= 98	Ox. Sol.2 Acute Tox.4 Eye Irrit.2 STOT SE3 Aquatic Acute1 Aquatic Chronic1	H272 H302 H319 H335 H400 H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

If inhaled	: Remove to fresh air. Keep at rest. Seek medical advice.
In case of skin contact	: Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Seek medical advice.
In case of eye contact	: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek medical advice.
If swallowed	: Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Seek medical advice.

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

Symptoms	: See Section 11 for more detailed information on health effects and symptoms.
Effects	: See Section 11 for more detailed information on health effects and symptoms.

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

Treatment	: Treat symptomatically. No further information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	:	Water, Carbon dioxide (CO2)
Unsuitable extinguishing media	:	No information available.

5.2. Special hazards arising from the substance or mixture

Specific hazards during firefighting	:	Contact with combustible material may cause fire. Hazardous decomposition products formed under heating:

5.3. Advice for firefighters

Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus.Wear personal protective equipment.
Further advice	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains.Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	: Use personal protective equipment. Avoid contact with skin and eyes.

6.2. Environmental precautions

Environmental precautions	: Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. If the product contaminates rivers and lakes or drains inform respective authorities. If material reaches soil inform authorities responsible for such cases.

6.3. Methods and materials for containment and cleaning up

Methods and materials for containment and cleaning up	:	Use mechanical handling equipment. Sweep up and shovel. Keep in suitable, closed containers for disposal. Flush away traces with water.
Further information	:	Treat recovered material as described in the section "Disposal considerations".

6.4. Reference to other sections

See Section 1 for emergency contact information.
See Section 8 for information on personal protective equipment.
See Section 13 for waste treatment information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling	:	Keep container tightly closed. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation.
Hygiene measures	:	Keep away from food, drink and animal feedingstuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of workday. Take off all contaminated clothing immediately. Provide adequate ventilation. Avoid contact with the skin and the eyes.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	:	Suitable materials for containers: Plastic material; Unsuitable materials for containers: Wood; natural rubber; Metals
Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.
Further information on storage conditions	:	Keep tightly closed in a dry and cool place. Keep away from heat.
Advice on common storage	:	Keep away from food, drink and animal feedingstuffs.

7.3. Specific end use(s)

Specific use(s)	:	No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Component:	Aluminium sulphate, hydrate unspecified	CAS-No. 17927-65-0

Other Occupational Exposure Limit Values

UK. EH40 Workplace Exposure Limits (WELs), Time Weighted Average (TWA):
2 mg/m3

ELV (IE), Time Weighted Average (TWA):
2 mg/m3

8.2. Exposure controls

Appropriate engineering controls

Refer to protective measures listed in sections 7 and 8.

Personal protective equipment

Respiratory protection

Advice	:	In the case of dust or aerosol formation use respirator with an approved filter. Combination filter:B-P2

Hand protection

Advice	:	The glove material has to be impermeable and resistant to the product / the substance / the preparation. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Protective gloves should be replaced at first signs of wear. Protective gloves complying with EN 374.

Eye protection

Advice	:	Safety goggles

Skin and body protection

Advice	:	Wear personal protective equipment.

Environmental exposure controls

General advice	:	Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. If the product contaminates rivers and lakes or drains inform respective authorities. If material reaches soil inform authorities responsible for such cases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form	:	tablet
Colour	:	no data available
Odour	:	slight chlorine
Odour Threshold	:	no data available
pH	:	2.7 - 3.3
Melting point/range	:	246.8 °C
Boiling point	:	no data available
Flash point	:	no data available
Evaporation rate	:	no data available
Flammability (solid, gas)	:	The product is not flammable.
Upper explosion limit	:	no data available
Lower explosion limit	:	no data available
Vapour pressure	:	< 0.00002 hPa (20 °C)
Relative vapour density	:	no data available
Relative density	:	no data available
Water solubility	:	12 g/l (25 °C)
Solubility in other solvents	:	385 g/l (Ethyl acetate)
Partition coefficient: n-octanol/water	:	log Kow 0.94
Auto-ignition temperature	:	no data available
Thermal decomposition	:	246.8 °C
Viscosity, dynamic	:	no data available
Explosivity	:	Product is not explosive.
Oxidizing properties	:	May intensify fire; oxidizer.

9.2. Other information

No further information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Advice : No information available.

10.2. Chemical stability

Advice : No decomposition if stored and applied as directed.
No further information available.

10.3. Possibility of hazardous reactions

Hazardous reactions : No information available.

10.4. Conditions to avoid

Conditions to avoid : > 50 °C

Thermal decomposition : 246.8 °C

10.5. Incompatible materials

Materials to avoid : Metals, Water, Oxidizing agents, Reducing agents, Acids, alkalis

10.6. Hazardous decomposition products

Hazardous decomposition products : No information available.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Data for the product		
Acute toxicity		
Oral		
LD50	:	787 - 868 mg/kg (Rat, male and female) (Calculation method)Harmful if swallowed.
Inhalation		
LD50	:	0.09 - 0.29 mg/l (Rat, male and female) (Calculation method)
Dermal		
LD50	:	> 2000 mg/kg (Rabbit, male and female) (Calculation method)
Irritation		
Skin		

no data available

Eyes

Result : (Rabbit; Causes serious eye irritation.)

Sensitisation

Result : (Guinea pig) not sensitizing

CMR effects

CMR Properties

Carcinogenicity : no data available

Mutagenicity : no data available

Reproductive toxicity : no data available

Specific Target Organ Toxicity

Single exposure

no data available

Repeated exposure

no data available

Other toxic properties

Repeated dose toxicity

no data available

Aspiration hazard

no data available

SECTION 12: Ecological information

12.1. Toxicity

Data for the product

Acute toxicity

Fish

LC50 : 0.24 mg/l (Salmo gairdneri; 96 h) (static test)

LC50		0.23 mg/l (Salmo gairdneri; 96 h) (static test)

Toxicity to daphnia and other aquatic invertebrates

EC50	:	0.21 mg/l (Daphnia magna; 48 h) (static test)
EC50		0.17 mg/l (Daphnia magna; 48 h) (static test)

algae

EC50	:	0.5 mg/l (algae; 3 h)
NOEC		< 0.5 mg/l (algae; 3 h)

12.2. Persistence and degradability

Data for the product

Persistence and degradability

Biodegradability

Result	:	2 % (Exposure Time: 28 d)Not readily biodegradable.

12.3. Bioaccumulative potential

Data for the product

Bioaccumulation

Result	:	BCF: 3.12

12.4. Mobility in soil

12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects

Data for the product

Additional ecological information

Result	:	Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product	:	Do not let product enter drains. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of in accordance with local regulations.
Contaminated packaging	:	Packagings that cannot be cleaned are to be disposed of in the same manner as the product.
European Waste Catalogue Number	:	No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.

SECTION 14: Transport information

14.1. UN number

2468

14.2. UN proper shipping name

ADR : TRICHLOROISOCYANURIC ACID, DRY
RID : TRICHLOROISOCYANURIC ACID, DRY
IMDG : TRICHLOROISOCYANURIC ACID, DRY

14.3. Transport hazard class(es)

ADR-Class	: 5.1
(Labels; Classification Code; Hazard identification No; Tunnel restriction code)	5.1; O2; 50; (E)
RID-Class	: 5.1
(Labels; Classification Code; Hazard identification No)	5.1; O2; 50
IMDG-Class	: 5.1
(Labels; EmS)	5.1; F-A, S-Q

14.4. Packaging group

ADR : II
RID : II
IMDG : II

14.5. Environmental hazards

Environmentally hazardous according to ADR	: yes
Environmentally hazardous according to RID	: yes
Marine Pollutant according to IMDG-Code	: yes

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

IMDG : Not applicable.

SECTION 15: Regulatory information

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

15.2. Chemical safety assessment

no data available

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H272	May intensify fire; oxidizer.
H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Abbreviations and Acronyms

BCF	bioconcentration factor
BOD	biochemical oxygen demand
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
CMR	carcinogenic, mutagenic or toxic to reproduction
COD	chemical oxygen demand
DNEL	derived no-effect level
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
LC50	median lethal concentration
LOAEC	lowest observed adverse effect concentration
LOAEL	lowest observed adverse effect level
LOEL	lowest observed effect level
NLP	no-longer polymer
NOAEC	no observed adverse effect concentration
NOAEL	no observed adverse effect level

NOEC	no observed effect concentration
NOEL	no observed effect level
OECD	Organisation for Economic Cooperation and Development
OEL	occupational exposure limit
PBT	persistent, bioaccumulative and toxic
PNEC	predicted no-effect concentration
STOT	specific target organ toxicity
SVHC	substance of very high concern
UVCB	substance of unknown or variable composition, complex reaction products or biological materials
vPvB	very persistent and very bioaccumulative

Further information

Key literature references and sources for data	:	Supplier information and data from the "Database of registered substances" of the European Chemicals Agency (ECHA) were used to create this safety data sheet.
Methods used for product classification	:	The classification for human health, physical and chemical hazards and environmental hazards were derived from a combination of calculation methods and if available test data.
Hints for trainings	:	The workers have to be trained regularly on the safe handling of the products based on the information provided in the Safety Data Sheet and the local conditions of the workplace. National regulations for the training of workers in the handling of hazardous materials must be adhered to.
Other information	:	The information provided in this Safety Data Sheet is correct to our knowledge at the date of its revision. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship. The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

|| Indicates updated section.