

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 24.07.2017

Version number 9

Revision: 24.07.2017

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

• 1.1 Product identifier

• Trade name: Chemoclor Multifunction Tablets 20 g

• Article number: 0508

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

No further relevant information available.

• **Application of the substance / the mixture** Water treatment

• 1.3 Details of the supplier of the safety data sheet

• Manufacturer/Supplier:

Chemoform AG
Heinrich-Otto-Str. 28
73240 Wendlingen, Germany
www.chemoform.com
info@chemoform.com

VÁGNER POOL, s.r.o.
Nad Safinou 348
252 42 Vestec
Praha západ, CZECH REPUBLIC
tel: +420 244 913 177
www.vagnerpool.com

• **Further information obtainable from:** datenblatt@chemoform.com

• 1.4 Emergency telephone number:

National Poison Inform. Centre
Medical Toxicology Unit
Avalonley Road
London SE14 5ER
+44 (171) 635 91 91

SECTION 2: Hazards identification

• 2.1 Classification of the substance or mixture

• Classification according to Regulation (EC) No 1272/2008



GHS03 flame over circle

Ox. Sol. 3 H272 May intensify fire; oxidiser.



GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

• 2.2 Label elements

• Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

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- Hazard pictograms



GHS03

GHS07

GHS09

- Signal word Warning

- Hazard-determining components of labelling:

trichloroisocyanuric acid

- Hazard statements

H272 May intensify fire; oxidiser.

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

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P273 Avoid release to the environment.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

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.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- Additional information:

EUH031 Contact with acids liberates toxic gas.

Warning! Do not use together with other products. May release dangerous gases (chlorine).

- 2.3 Other hazards

- Results of PBT and vPvB assessment

- PBT: Not applicable.

- vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- 3.2 Mixtures

- Description: Mixture of substances listed below with nonhazardous additions.

- Dangerous components:

CAS: 87-90-1 EINECS: 201-782-8 Index number: 613-031-00-5	trichloroisocyanuric acid Ox. Sol. 2, H272; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Eye Irrit. 2, H319; STOT SE 3, H335	75-100%
CAS: 10043-35-3 EINECS: 233-139-2 Index number: 005-007-00-2 Reg.nr.: 01-2119486683-25-xxxx 01-2119486683-25-0029	boric acid Repr. 1B, H360FD	0.5-1%
CAS: 7758-99-8	copper(II) sulfate, pentahydrate Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302	0.5-1%
CAS: 7784-31-8 EINECS: 233-135-0	Aluminiumsulfat-18-Hydrat Eye Dam. 1, H318	0.5-1%

- SVHC

10043-35-3 boric acid

- Additional information: For the wording of the listed hazard phrases refer to section 16.

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SECTION 4: First aid measures

• 4.1 Description of first aid measures

• General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

• **After inhalation:** Supply fresh air; consult doctor in case of complaints.

• **After skin contact:** Seek medical treatment.

• After eye contact:

Call a doctor immediately.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

• After swallowing:

Rinse out mouth and then drink plenty of water.

Call for a doctor immediately.

• **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

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

No further relevant information available.

SECTION 5: Firefighting measures

• 5.1 Extinguishing media

• Suitable extinguishing agents:

Water

Water spray

Carbon dioxide

Use fire extinguishing methods suitable to surrounding conditions.

• For safety reasons unsuitable extinguishing agents:

Extinguishing powder

Foam

Water with full jet

• 5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

In case of fire, the following can be released:

Nitrogen oxides (NO_x)

Hydrogen chloride (HCl)

• 5.3 Advice for firefighters

• Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

Mouth respiratory protective device.

• Additional information

Cool endangered receptacles with water spray.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

• 6.1 Personal precautions, protective equipment and emergency procedures

Avoid formation of dust.

Ensure adequate ventilation

Mount respiratory protective device.

• 6.2 Environmental precautions:

Keep contaminated washing water and dispose of appropriately.

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

• 6.3 Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

• 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

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SECTION 7: Handling and storage

• 7.1 Precautions for safe handling

Store in cool, dry place in tightly closed receptacles.

Provide suction extractors if dust is formed.

Restrict the quantity stored at the work place.

Do not refill residue into storage receptacles.

• Information about fire - and explosion protection: No special measures required.

• 7.2 Conditions for safe storage, including any incompatibilities

• Storage:

• Requirements to be met by storerooms and receptacles: Store only in the original receptacle.

• Information about storage in one common storage facility: Do not store together with acids.

• Further information about storage conditions:

Protect from humidity and water.

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

• Storage class: 5.1B

• 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

• Additional information about design of technical facilities: No further data; see item 7.

• 8.1 Control parameters

• Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

• Additional information: The lists valid during the making were used as basis.

• 8.2 Exposure controls

• Personal protective equipment:

• General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

• Respiratory protection:

Use suitable respiratory protective device when high concentrations are present.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

• Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

• Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

• Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

• For the permanent contact gloves made of the following materials are suitable:

Nitrile rubber, NBR

Chloroprene rubber, CR

Butyl rubber, BR

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- Eye protection:



Tightly sealed goggles

- Body protection:
Protective work clothing
Boots
Apron

SECTION 9: Physical and chemical properties

• 9.1 Information on basic physical and chemical properties

• General Information

• Appearance:

Form: Tablets
Colour: White

- Odour: Like chlorine
- Odour threshold: Not determined.

- pH-value (10 g/l) at 20 °C: 2.0-2.7

• Change in condition

Melting point/freezing point: 225-240 °C
Initial boiling point and boiling range: Undetermined.

- Flash point: Not applicable.

- Flammability (solid, gas): Not determined.

• Ignition temperature:

Decomposition temperature: 225 °C

- Auto-ignition temperature: Product is not selfigniting.

- Explosive properties: Product does not present an explosion hazard.

• Explosion limits:

Lower: Not determined.
Upper: Not determined.

- Vapour pressure: Not applicable.

- Density at 20 °C: ~2.5 g/cm³
- Relative density: Not determined.
- Vapour density: Not applicable.
- Evaporation rate: Not applicable.

• Solubility in / Miscibility with

water at 25 °C: 12 g/l

- Partition coefficient: n-octanol/water: Not determined.

• Viscosity:

Dynamic: Not applicable.
Kinematic: Not applicable.

• Solvent content:

Organic solvents: 0.0 %
VOC (EC) 0.00 %

Solids content: 100.0 %

- 9.2 Other information: No further relevant information available.

SECTION 10: Stability and reactivity

- 10.1 Reactivity: No further relevant information available.

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- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** To avoid thermal decomposition do not overheat.
- **10.3 Possibility of hazardous reactions**
 - Reacts with oxidising agents.
 - Reacts with strong alkali.
 - Reacts with amines.
 - Strong exothermic reaction with acids.
 - Reacts with flammable substances.
 - Reacts with acids releasing chlorine.
 - Reacts with reducing agents.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**
 - Hydrogen chloride (HCl)
 - Chlorine
 - Nitrogen oxides (NO_x)

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**
 - Harmful if swallowed.
- **LD/LC50 values relevant for classification:**

 - 87-90-1 trichloroisocyanuric acid**
 - Oral LD50 406 mg/kg (rat)
 - 10043-35-3 boric acid**
 - LD50 2660 mg/kg (rat)
- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**
 - Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **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**
 - May cause respiratory irritation.
- **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.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:**

 - 87-90-1 trichloroisocyanuric acid**
 - EC50 0.5 mg/l (Selenastrum capricornutum (Grünalge))
 - 0.2 mg/l (daphnia) (Modified method based on the ASTM method E645-85)
 - LC50 0.3 mg/l (Danio rerio (Zebraabärbling))
 - 10043-35-3 boric acid**
 - NOEC 10 mg/l (Chlorella pyrenoidosa)
 - LC50 133 mg/l (daphnia) (ASTM Standard E 729-80)
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Very toxic for fish

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- Behaviour in sewage processing plants: _____
- 10043-35-3 boric acid**
- NOEC 180 mg/l (Activated sludge) (OECD "Chironomid testing using spiked sediment")
- **Additional ecological information:**
- General notes:
 - Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
 - Do not allow product to reach ground water, water course or sewage system.
 - Danger to drinking water if even small quantities leak into the ground.
 - Also poisonous for fish and plankton in water bodies.
 - Very toxic for aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
 - Must be specially treated adhering to official regulations.
 - Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- Recommendation:
 - Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.
 - Packagings that may not be cleansed are to be disposed of in the same manner as the product.
- Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, IMDG, IATA** UN1479
- **14.2 UN proper shipping name**
- **ADR** 1479 OXIDIZING SOLID, N.O.S. (TRICHLOROISOCYANURIC ACID), ENVIRONMENTALLY HAZARDOUS
- **IMDG** OXIDIZING SOLID, N.O.S. (TRICHLOROISOCYANURIC ACID), MARINE POLLUTANT
- **IATA** OXIDIZING SOLID, N.O.S. (TRICHLOROISOCYANURIC ACID)
- **14.3 Transport hazard class(es)**
- **ADR, IMDG**
- 

- Class 5.1 Oxidising substances.
- Label 5.1

- **IATA**
- 
- Class 5.1 Oxidising substances.
- Label 5.1
- **14.4 Packing group**
- **ADR, IMDG, IATA** III
- **14.5 Environmental hazards:**
- **Marine pollutant:** Yes
 - Symbol (fish and tree)
- **Special marking (ADR):** Symbol (fish and tree)

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<ul style="list-style-type: none"> • 14.6 Special precautions for user • Danger code (Kemler): • EMS Number: • Stowage Category • Segregation Code 	Warning: Oxidising substances. 50 F-A,S-Q B SG38 Stow "separated from" ammonium compounds. SG49 Stow "separated from" cyanides SG60 Stow "separated from" peroxides SG61 Stow "separated from" powdered metals
<ul style="list-style-type: none"> • 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code 	Not applicable.
<ul style="list-style-type: none"> • Transport/Additional information: 	
<ul style="list-style-type: none"> • ADR • Excepted quantities (EQ): • Limited quantities (LQ) • Excepted quantities (EQ) 	E1 5 kg Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
<ul style="list-style-type: none"> • Transport category • Tunnel restriction code 	3 E
<ul style="list-style-type: none"> • IMDG • Limited quantities (LQ) • Excepted quantities (EQ) 	5 kg Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
<ul style="list-style-type: none"> • UN "Model Regulation": 	UN 1479 OXIDIZING SOLID, N.O.S. (TRICHLOROISOCYANURIC ACID), 5.1, III, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

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

- **Directive 2012/18/EU**

- Named dangerous substances - ANNEX I None of the ingredients is listed.
- Seveso category
 P8 OXIDISING LIQUIDS AND SOLIDS
 E1 Hazardous to the Aquatic Environment
- Qualifying quantity (tonnes) for the application of lower-tier requirements 50 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 30

- **National regulations:**

- Other regulations, limitations and prohibitive regulations
- Substances of very high concern (SVHC) according to REACH, Article 57
 10043-35-3 boric acid

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases
 H272 May intensify fire; oxidiser.
 H302 Harmful if swallowed.
 H318 Causes serious eye damage.
 H319 Causes serious eye irritation.
 H335 May cause respiratory irritation.
 H360FD May damage fertility. May damage the unborn child.
 H400 Very toxic to aquatic life.
 H410 Very toxic to aquatic life with long lasting effects.

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- Classification according to Regulation (EC) No 1272/2008

The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

- Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Ox. Sol. 2: Oxidizing solids – Category 2

Ox. Sol. 3: Oxidizing solids – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Repr. 1B: Reproductive toxicity – Category 1B

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

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