

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 08.06.2021

Rev. Index : 27.1

Revision: 09.02.2021

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

**1.1 Product identifier**

**Trade name: hth™ BLACKAL SHOCK**

**Article number:** 11109 hth

**UFI:** N4H1-10FE-K001-AX5U

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

**Sector of Use**

SU21 Consumer uses: Private households / general public / consumers

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

**Product category**

PC8 Biocidal products

PC37 Water treatment chemicals

**Application of the substance / the mixture**

Water treatment

Algicide

**1.3 Details of the supplier of the safety data sheet**

**Manufacturer/Supplier:**

INNOVATIVE WATER CARE EUROPE

BP 219 - 37402 Amboise Cedex - FRANCE

phone : +33 (0)2 47 23 43 00

fax : +33 (0)2 47 23 12 21

eu.sds@sigurawater.com

INNOVATIVE WATER CARE Ltd

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**1.4 Emergency telephone number:**

Europe >>> NCEC - Tel. +44 (0)1235 239 670  
Africa & Middle East >>> NCEC - Tel. +44 (0)1235 239 671  
N.AMERICA >>> ACEAN (Arch Chemicals Emergency Action Network) - Tel. +1 423  
780 2970}  
CALL A LOCAL NATIONAL POISON CONTROL UNIT  
FOR UK CONTACT NCEC Tel 01865 407 333

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**  
**Classification according to Regulation (EC) No 1272/2008**



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.  
Eye Dam. 1 H318 Causes serious eye damage.



GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.  
Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

**2.2 Label elements**

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

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

**Hazard pictograms**



GHS05 GHS09

**Signal word** Danger

**Hazard-determining components of labelling:**

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides  
2-aminoethanol  
Copper sulphate pentahydrate

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**Hazard statements**

H314 Causes severe skin burns and eye damage.  
 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.  
 P103 Read carefully and follow all instructions.  
 P260 Do not breathe mist/vapours/spray.  
 P264 Wash thoroughly after handling.  
 P271 Use only outdoors or in a well-ventilated area.  
 P273 Avoid release to the environment.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
 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.  
 P310 Immediately call a POISON CENTER/doctor.  
 P363 Wash contaminated clothing before reuse.  
 P391 Collect spillage.  
 P405 Store locked up.  
 P501 Dispose of contents/container to special treatment scheme according to official regulations.

**2.3 Other hazards**

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

**SECTION 3: Composition/information on ingredients**

**3.2 Chemical characterisation: Mixtures**

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

**Dangerous components:**

|  |  |         |
|--|--|---------|
| CAS: 68424-85-1<br>EINECS: 270-325-2<br>Index number: 612-140-00-5 | Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides<br>⚠ Skin Corr. 1B, H314; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302 | 25-<50% |
|--|--|---------|

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|  |  |                                |
|--|--|--------------------------------|
| CAS: 7758-99-8<br>EINECS: 231-847-6<br>Index number: 029-023-00-4                                  | Copper sulphate pentahydrate<br>⚠ Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=10); ⚠ Acute Tox. 4, H302                           | (Contd. of page 3)<br>2.5-<10% |
| CAS: 141-43-5<br>EINECS: 205-483-3<br>Index number: 603-030-00-8<br>Reg.nr.: 01-2119486455-28-XXXX | 2-aminoethanol<br>⚠ Skin Corr. 1B, H314; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332<br>Specific concentration limit:<br>STOT SE 3; H335: C ≥ 5 % | 2.5-<10%                       |

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

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

**General information** Immediately remove any clothing soiled by the product.

**After inhalation**

In case of unconsciousness place patient stably in side position for transportation.

**After skin contact** Immediately wash with water and soap and rinse thoroughly.

**After eye contact**

Rinse opened eye for several minutes (15) under running water. Then consult a doctor.

**After swallowing**

Rinse out mouth and then drink plenty of water.

Drink plenty of water and provide fresh air. 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**

Use fire extinguishing methods suitable to surrounding conditions.

**5.2 Special hazards arising from the substance or mixture**

During heating or in case of fire poisonous gases are produced.

**5.3 Advice for firefighters**

**Protective equipment:** Mount respiratory protective device.

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## **SECTION 6: Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective clothing.

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

### **6.2 Environmental precautions:**

Prevent from spreading (e.g. by damming-in or oil barriers).

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.

Dilute with plenty of water.

### **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralising agent.

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.

See Section 13 for disposal information.

## **SECTION 7: Handling and storage**

### **7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

#### **Handling**



**DO NOT MIX WITH OTHER PRODUCTS**  
**DO NOT DILUTE BEFORE USE**

**Information about fire - and explosion protection:** Keep respiratory protective device available.

### **7.2 Conditions for safe storage, including any incompatibilities**

#### **Storage**

#### **Requirements to be met by storerooms and receptacles:**

Store only in unopened original receptacles.

**Information about storage in one common storage facility:** Not required.

#### **Further information about storage conditions:**

Protect from frost.

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Store receptacle in a well ventilated area.  
 Keep receptacle tightly sealed.  
**7.3 Specific end use(s)** No further relevant information available.

**SECTION 8: Exposure controls/personal protection**

**8.1 Control parameters**

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

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

**CAS: 141-43-5 2-aminoethanol**

|     |   |
|-----|---|
| WEL | Short-term value: 7.6 mg/m <sup>3</sup> , 3 ppm<br>Long-term value: 2.5 mg/m <sup>3</sup> , 1 ppm<br>Sk |
|-----|---|

**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.  
 Do not inhale gases / fumes / aerosols.  
 Avoid contact with the eyes.  
 Avoid contact with the eyes and skin.

**Respiratory protection:**

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:**

Synthetic rubber gloves



Protective gloves.

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

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**Material of gloves**

Butyl rubber, BR  
 Nitrile rubber, NBR

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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:**



Tightly sealed goggles.

**Body protection:** Apron

**SECTION 9: Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

**General Information**

**Appearance:**

|                         |                 |
|-------------------------|-----------------|
| <b>Form:</b>            | Fluid           |
| <b>Colour:</b>          | Blue            |
| <b>Odour:</b>           | Characteristic  |
| <b>Odour threshold:</b> | Not determined. |

|                           |     |
|---------------------------|-----|
| <b>pH-value at 20 °C:</b> | 9.5 |
|---------------------------|-----|

**Change in condition**

|   |              |
|---|--------------|
| <b>Melting point/freezing point:</b>            | undetermined |
| <b>Initial boiling point and boiling range:</b> | 100 °C       |

|                     |                |
|---------------------|----------------|
| <b>Flash point:</b> | Not applicable |
|---------------------|----------------|

|                                      |                 |
|--------------------------------------|-----------------|
| <b>Flammability (solid, gaseous)</b> | Not applicable. |
|--------------------------------------|-----------------|

|                              |        |
|------------------------------|--------|
| <b>Ignition temperature:</b> | 305 °C |
|------------------------------|--------|

|                                   |                 |
|-----------------------------------|-----------------|
| <b>Decomposition temperature:</b> | Not determined. |
|-----------------------------------|-----------------|

|                                   |                              |
|-----------------------------------|------------------------------|
| <b>Auto-ignition temperature:</b> | Product is not selfigniting. |
|-----------------------------------|------------------------------|

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|  |   |
|--|---|
| <b>Explosive properties:</b>                   | Product does not present an explosion hazard. |
| <b>Explosion limits:</b>                       |   |
| <b>Lower:</b>                                  | Not determined.                               |
| <b>Upper:</b>                                  | Not determined.                               |
| <b>Vapour pressure at 20 °C:</b>               | 23 hPa  |
| <b>Density at 20 °C:</b>                       | 1.072 g/cm <sup>3</sup>                       |
| <b>Relative density</b>                        | Not determined.                               |
| <b>Vapour density</b>                          | Not determined.                               |
| <b>Evaporation rate</b>                        | Not determined.                               |
| <b>Solubility in / Miscibility with Water:</b> | Fully miscible                                |
| <b>Partition coefficient: n-octanol/water:</b> | Not determined.                               |
| <b>Viscosity:</b>                              |   |
| <b>dynamic:</b>                                | Not determined.                               |
| <b>kinematic:</b>                              | Not determined.                               |
| <b>Solvent content:</b>                        |   |
| <b>Organic solvents:</b>                       | 12.1 %  |
| <b>Water:</b>                                  | 46.9 %  |
| <b>Solids content:</b>                         | 0.0 %   |
| <b>9.2 Other information</b>                   | No further relevant information available.    |

**SECTION 10: Stability and reactivity****10.1 Reactivity** No further relevant information available.**10.2 Chemical stability****Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

**10.3 Possibility of hazardous reactions** No dangerous reactions known**10.4 Conditions to avoid** No further relevant information available.**10.5 Incompatible materials:** No further relevant information available.**10.6 Hazardous decomposition products:** No dangerous decomposition products known

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**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

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

**LD/LC50 values relevant for classification:**

|        |      |                       |
|--------|------|-----------------------|
| Oral   | LD50 | 3,813 mg/kg (rat)     |
| Dermal | LD50 | >4,090 mg/kg (rabbit) |

**CAS: 68424-85-1 Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides**

|        |      |                   |
|--------|------|-------------------|
| Oral   | LD50 | 240 mg/kg (rat)   |
| Dermal | LD50 | 1,560 mg/kg (rat) |

**CAS: 7758-99-8 Copper sulphate pentahydrate**

|            |              |                   |
|------------|--------------|-------------------|
| Oral       | LD50         | 300 mg/kg (rat)   |
| Dermal     | LD50         | 1,000 mg/kg (rat) |
| Inhalative | LC50 - 4 hrs | 1.48 mg/l (rat)   |

**CAS: 141-43-5 2-aminoethanol**

|        |      |                   |
|--------|------|-------------------|
| Oral   | LD50 | 2,050 mg/kg (rat) |
| Dermal | LD50 | 1,000 mg/kg (rbt) |

**Primary irritant effect:**

**Skin corrosion/irritation**

Causes severe skin burns and eye damage.

**Serious eye damage/irritation**

Causes serious eye damage.

**Respiratory or skin sensitisation**

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

**Additional toxicological information:**

**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** 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.

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**SECTION 12: Ecological information**

**12.1 Toxicity**

**Aquatic toxicity:**

|      |               |   |
|------|---------------|---|
| Oral | LC50 - 96 hrs | 0.572 mg/l (bluegill sunfish)<br>0.145 mg/l (rainbow trout) |
|------|---------------|---|

**CAS: 7758-99-8 Copper sulphate pentahydrate**

|      |               |                                |
|------|---------------|--------------------------------|
| Oral | LC50 - 96 hrs | 0.75-0.84 mg/l (rainbow trout) |
|      | CE50 - 48 hrs | 0.024 mg/l (daphnia magna)     |

**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

**Additional ecological information:**

**General notes:**

Generally not hazardous for water.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

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:** Disposal must be made according to official regulations.

**Recommended cleansing agents:** Water, if necessary together with cleansing agents.

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**SECTION 14: Transport information**

**14.1 UN-Number  
 ADR, IMDG, IATA**

UN3265

**14.2 UN proper shipping name  
 ADR**

3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides), ENVIRONMENTALLY HAZARDOUS CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides), MARINE POLLUTANT  
 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides)

**IMDG**

**IATA**

**14.3 Transport hazard class(es)**

**ADR**



**Class  
 Label**

8 (C3) Corrosive substances.  
 8

**IMDG**



**Class  
 Label**

8 Corrosive substances.  
 8

**IATA**



**Class  
 Label**

8 Corrosive substances.  
 8

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**14.4 Packing group**

**ADR, IMDG, IATA**

III

**14.5 Environmental hazards:**

**Marine pollutant:**

Yes

Symbol (fish and tree)

Symbol (fish and tree)

**Special marking (ADR):**

Warning: Corrosive substances.

**14.6 Special precautions for user**

**Hazard identification number (Kemler code):**

80

**EMS Number:**

F-A,S-B

**Segregation groups**

Acids

**Stowage Category**

A

**Stowage Code**

SW2 Clear of living quarters.

**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

**Transport/Additional information:**

**ADR**

**Excepted quantities (EQ):**

E1

**Limited quantities (LQ)**

5L

**Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

**Transport category**

3

**Tunnel restriction code**

E

**IMDG**

**Limited quantities (LQ)**

5L

**Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

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**UN "Model Regulation":**

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UN 3265 CORROSIVE LIQUID, ACIDIC,  
ORGANIC, N.O.S. (QUATERNARY  
AMMONIUM COMPOUNDS, BENZYL-C12-16-  
ALKYLDIMETHYL, CHLORIDES), 8, III,  
ENVIRONMENTALLY HAZARDOUS

## SECTION 15: Regulatory information

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

**REGULATION (EU) No 528/2012**

Best before : see date on packaging

Providing this container when empty is thoroughly rinsed out in the pool, it may be disposed of via the recycling scheme

**Directive 2012/18/EU**

**Named dangerous substances - ANNEX I** None of the ingredients is listed.

**Seveso category E1** Hazardous to the Aquatic Environment

**Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t

**Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t

**REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

**DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

**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**

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

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**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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity - oral – Category 4

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

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

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

\* **Data compared to the previous version altered.**