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

Printing date 07.10.2020 Rev. Index : 31.2 Revision: 03.04.2020

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

1.1 Product identifier

Trade name: hth™ SHOCK

Article number: 11602 hth
REGULATION (EC) No 1272/2008 - ANNEX VI - International Chemical Identification
calcium hypochlorite
CAS Number:
7778-54-3
EC number:
231-908-7
Index number:
017-012-00-7

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
Product category
PC37 Water treatment chemicals
PC8 Biocidal products
Application of the substance / the mixture Water treatment - Solid Chlorinating agent

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, LLC
1400 Bluegrass Lakes Pkwy, Alpharetta,
GA 30004 - U.S.A.

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1200 Lower river Road, P.O. Box 800
Charleston, Tennessee 37310-0800 - U.S.A.

INNOVATIVE WATER CARE Ltd
The Studios - Colorado Way - Castleford - West Yorkshire -
WF10 4TA - UNITED KINGDOM
Telephone: +44 (0) 1924 792909
eu.sds@sigurawater.com

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}

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. 2 H272 May intensify fire; oxidiser.


GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.


GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.


GHS07

Acute Tox. 4 H302 Harmful if swallowed.

2.2 Label elements
Labelling according to Regulation (EC) No 1272/2008
The substance is classified and labelled according to the CLP regulation.

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Hazard pictograms

GHS03 GHS05 GHS07 GHS09

Signal word Danger

Hazard-determining components of labelling:
calcium hypochlorite
Hazard statements
H272 May intensify fire; oxidiser.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H400 Very toxic to aquatic life.
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.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220	Keep away from clothing and other combustible materials.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
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+P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
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.
P370+P378	In case of fire: Use for extinction: Water.

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P391 Collect spillage.
P405 Store locked up.
P501 Dispose of contents/container to special treatment scheme according to official regulations.

Additional information:
EUH031 Contact with acids liberates toxic gas.
EUH206 EUH206 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

3.1 Chemical characterisation: Substances
CAS No. Description:
7778-54-3 calcium hypochlorite
Identification number(s):
EC number: 231-908-7
Index number: 017-012-00-7

Dangerous components:		
CAS: 7778-54-3 EINECS: 231-908-7 Index number: 017-012-00-7	calcium hypochlorite Ox. Sol. 2, H272; Skin Corr. 1B, H314; Aquatic Acute 1, H400 (M=10); Acute Tox. 4, H302 Specific concentration limits: Skin Corr. 1B; H314: C ≥ 5 % Skin Irrit. 2; H315: 1 % ≤ C < 5 % Eye Dam. 1; H318: C ≥ 3 % Eye Irrit. 2; H319: 0.5 % ≤ C < 3 %	50-<100%
CAS: 10043-52-4 EINECS: 233-140-8 Index number: 017-013-00-2 Reg.nr.: 01-2119494219-28-XXXX	calcium chloride Acute Tox. 4, H302; Eye Irrit. 2, H319	<2%
CAS: 1305-62-0 EINECS: 215-137-3	calcium dihydroxide Eye Dam. 1, H318	<3%

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CAS: 10137-74-3 EINECS: 233-378-2	calcium chlorate Ox. Sol. 2, H272	<2%

SECTION 4: First aid measures

4.1 Description of first aid measures
General information
Take affected persons out into the fresh air.
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
After inhalation
In case of unconsciousness place patient stably in side position for transportation.
After skin contact
Rinse with warm water.
Immediately wash with water and soap and rinse thoroughly.
Immediately rinse with water.
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.
Call for a doctor immediately.
Drink plenty of water and provide fresh air. Call for a doctor immediately.
4.2 Most important symptoms and effects, both acute and delayed
Breathing difficulty
Coughing
Nausea
Gastric or intestinal disorders.
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 spray
Use fire extinguishing methods suitable to surrounding conditions.
For safety reasons unsuitable extinguishing agents Extinguishing powder.

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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.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.
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:
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
Thorough dedusting.
Ensure good ventilation/exhaustion at the workplace.

Handling

DO NOT MIX WITH OTHER PRODUCTS
DO NOT DISSOLVE BEFORE USE

Information about fire - and explosion protection:
Substance/product is oxidising when dry.
Keep respiratory protective device available.

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7.2 Conditions for safe storage, including any incompatibilities
Storage
Requirements to be met by storerooms and receptacles:
Store only in unopened original receptacles.
Do not store product where the average daily temperature exceeds 35°C. Storage above this temperature may result in rapid decomposition, evolution of chlorine gas and heat sufficient to ignite combustible products
Information about storage in one common storage facility:
Store away from flammable substances.
Store away from reducing agents.
Do not store together with acids.
Further information about storage conditions: Keep receptacle tightly sealed.
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: Not required.
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 and skin.
Respiratory protection:
Use suitable respiratory protective device only when aerosol or mist is formed.
Use suitable respiratory protective device when high concentrations are present.
Filter P2.
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.

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Protection of hands:

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

Material of gloves
Chloroprene rubber, CR
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.

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.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:	
Form:	Powder
Colour:	Whitish
Odour:	Characteristic
Odour threshold:	Not determined.
pH-value:	11.5
Change in condition	
Melting point/freezing point:	100 °C (decomp)
Initial boiling point and boiling range:	undetermined
Flash point:	Not applicable

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Flammability (solid, gaseous)	Product is not flammable.
Decomposition temperature:	170 - 180 °C
Auto-ignition temperature:	Not determined.
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:	0.8 g/cm³
Relative density	Not determined.
Vapour density	Not applicable.
Evaporation rate	Not applicable.
Solubility in / Miscibility with	
Water at 20 °C:	217 g/l
Partition coefficient: n-octanol/water:	Not determined.
Viscosity:	
dynamic:	Not applicable.
kinematic:	Not applicable.
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.
10.2 Chemical stability
Thermal decomposition / conditions to be avoided:
Do not store product where the average daily temperature exceeds 35°C.
Storage above this temperature may result in rapid decomposition, evolution of chlorine gas and heat sufficient to ignite combustible products
10.3 Possibility of hazardous reactions
NEVER MIX THIS PRODUCT WITH ORGANIC CHLORINE (TRICHLOR or DICHLOR) WITHIN THE SAME CONTAINER

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Reacts with strong oxidizing agents
Reacts with alcohols, amines, aqueous acids and alkalis
Reacts with flammable substances
10.4 Conditions to avoid No further relevant information available.
10.5 Incompatible materials:
Warning! Do not use together with other products. May release dangerous gases (chlorine).
10.6 Hazardous decomposition products: Poisonous gases/vapours

SECTION 11: Toxicological information

11.1 Information on toxicological effects
Acute toxicity
Harmful if swallowed.

LD/LC50 values relevant for classification:		
Dermal	LD50	>2,000 mg/kg (rabbit)
Inhalative	LD50	1,300 mg/cm3 (rat)

CAS: 7778-54-3 calcium hypochlorite		
Oral	LD50	850 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit)
Inhalative	LD50	1,300 mg/cm3 (rat)

Primary irritant effect:
Skin corrosion/irritation
Causes severe skin burns and eye damage.
Serious eye damage/irritation
Causes severe skin burns and eye damage.
Respiratory or skin sensitisation
Based on available data, the classification criteria are not met.
CMR effects (carcinogenity, 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	0.088 mg/l (bluegill sunfish) 0.16 mg/l (rainbow trout)
	LC50 - 48 hrs	0.11 mg/l (daphnia magna)

CAS: 7778-54-3 calcium hypochlorite		
Oral	LC50 - 96 hrs	0.088 mg/l (bluegill sunfish) 0.16 mg/l (rainbow trout)
	LC50 - 48 hrs	0.11 mg/l (daphnia magna)

12.2 Persistence and degradability
Anorganic product, is not eliminable from water by means of biological cleaning processes.
12.3 Bioaccumulative potential No further relevant information available.
12.4 Mobility in soil No further relevant information available.
Ecotoxical effects:
Remark:
Very toxic for fish

Oral	LD/LC50	>3,474 ppm (bobwhite quail) >5,000 ppm (mallard duck)

Additional ecological information:
General notes:
Water hazard class 2 (German Regulation) (Assessment by list): hazardous for water.
Do not allow product to reach ground water, water course or sewage system.
Must not reach sewage water or drainage ditch undiluted or unneutralised.
Danger to drinking water if even small quantities leak into the ground.
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.

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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.

SECTION 14: Transport information

14.1 UN-Number
ADR, IMDG, IATA UN2880

14.2 UN proper shipping name
ADR 2880 CALCIUM HYPOCHLORITE, HYDRATED MIXTURE
IMDG CALCIUM HYPOCHLORITE, HYDRATED MIXTURE, MARINE POLLUTANT
IATA CALCIUM HYPOCHLORITE, HYDRATED MIXTURE

14.3 Transport hazard class(es)

ADR

Class 5.1 (O2) Oxidising substances.
Label 5.1

IMDG

Class 5.1 Oxidising substances.

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Label	5.1

IATA

Class	5.1 Oxidising substances.
Label	5.1
14.4 Packing group	
ADR, IMDG, IATA	II
14.5 Environmental hazards:	
Marine pollutant:	Yes Symbol (fish and tree)
Special marking (ADR):	Symbol (fish and tree)
14.6 Special precautions for user	Warning: Oxidising substances.
Danger code (Kemler):	50
EMS Number:	F-H,S-Q
Segregation groups	Hypochlorites
Stowage Category	D
Stowage Code	SW1 Protected from sources of heat. SW11 Cargo transport units shall be shaded from direct sunlight. Packages in cargo transport units shall be stowed so as to allow for adequate air circulation throughout the cargo.
Segregation Code	SG35 Stow "separated from" SGG1-acids SG38 Stow "separated from" SGG2-ammonium compounds. SG49 Stow "separated from" SGG6-cyanides SG53 Stow "separated from" liquid organic substances SG60 Stow "separated from" SGG16-peroxides
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.

Transport/Additional information:

ADR	
Excepted quantities (EQ):	E2
Limited quantities (LQ)	1 kg
Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 g

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	Maximum net quantity per outer packaging: 500 g
Transport category	2
Tunnel restriction code	E

IMDG

Limited quantities (LQ)	1 kg
Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 500 g
UN "Model Regulation":	UN2880, CALCIUM HYPOCHLORITE, HYDRATED MIXTURE, 5.1, II

SECTION 15: Regulatory information

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

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

Directive 2012/18/EU
Qualifying quantity (tonnes) for the application of lower-tier requirements 50 t
Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t
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.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H400 Very toxic to aquatic life.

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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
Ox. Sol. 2: Oxidizing solids – Category 2
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
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
*** Data compared to the previous version altered.**