Material Safety Data Sheet

HTH Shock

1. Company Identification and Product Information

Product Name: **HTH Shock**

Application Water treatment, Water disinfectant

Supplier:
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Talbot Road
Manchester
M32 0FP

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2. Hazard Identification

Hazard description:


C Corrosive


O Oxidising


N Dangerous for the environment

Information concerning to particular hazards to man and environment
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
R 8 Contact with combustible material may cause fire.

R 22 Harmful if swallowed.
R 31 Contact with acids liberates toxic gas.
R 34 Causes burns.
R 50 Very toxic to aquatic organisms.
Warning! Do not use together with other products. May release dangerous gases (chlorine).
Classification system
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
GHS label elements


Danger
H272 - May intensify fire; oxidiser.


Danger
H314 - Causes severe skin burns and eye damage.


Warning
H400 - Very toxic to aquatic life.


Warning
H302+EUH031 - Harmful if swallowed. Contact with acids liberates toxic gas.
H335+H336 - May cause respiratory irritation. May cause drowsiness or dizziness.
Warning! Do not use together with other products. May release dangerous gases (chlorine).

Prevention:	P221 Take any precaution to avoid mixing with combustibles.
Response:	P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. 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 or doctor/physician.
Storage:	P405 Store locked up.
Disposal:	P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

3. Composition Information

Chemical characterization:
CAS No. Description: 7778-54-3 calcium hypochlorite
Identification number(s):
EINECS Number: 231-908-7
Index number: 017-012-00-7
Impurities and stabilising additives:

	CAS:	EINECS:		
calcium carbonate	471-34-1	207-439-9		
calcium chloride	10043-52-4	233-140-8	Xi; R 36 Warning: exclamation mark 3.3/2	
calcium dihydroxide	1305-62-0	215-137-3	Xi; R 41 Danger: corrosion 3.3/1	
calcium chlorate	10137-74-3	233-378-2	Danger: flame over circle 2.13/2	
sodium chloride	7647-14-5	231-598-3		

Chemical characterization
Dangerous components:

	CAS	EINECS		
calcium hypochlorite 50-<100%	7778-54-3	231-908-7	C, Xn, O, N; R 8-22-31-34-50 Danger: flame over circle 2.14/2; corrosion 3.2/1B Warning: environment 4.1.A/1; exclamation mark 3.1.O/4	
calcium chloride	10043-52-4	233-140-8	Xi; R 36 Warning: exclamation mark 3.3/2	<2%
calcium dihydroxide	1305-62-0	215-137-3	Xi; R 41 Danger: corrosion 3.3/1	<3%
calcium chlorate	10137-74-3	233-378-2	Danger: flame over circle 2.13/2	<2%

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

4. 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.

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.

5. Fire Fighting Measures

Suitable extinguishing agents	Water spray
For safety reasons unsuitable extinguishing agents	Extinguishing powder.
Protective equipment:	Mount respiratory protective device.

6. Accidental Release Measures

Person-related safety precautions:	Mount respiratory protective device
Wear protective equipment.	Keep unprotected persons away.
Measures for environmental protection:	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.
Measures for cleaning/collecting:	Use neutralizing agent. Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.

7. Handling and Storage

Handling	DO NOT MIX WITH OTHER PRODUCTS DO NOT DISSOLVE BEFORE USE
Information for safe handling:	Thorough dedusting.
Information about fire - and explosion protection:	Substance/product is oxidizing when dry.
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.

8. Exposure Controls

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

Ingredients with limit values that require monitoring at the workplace:	Not required.
Additional information:	The lists valid during the making were used as basis.
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.
Protection of hands:	Protective gloves. The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. 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. 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.

9. Physical and Chemical Properties

General Information	
Form:	Granulate
Colour:	Whitish
Odour:	Characteristic
Change in condition	
Melting point/Melting range:	undetermined
Boiling point/Boiling range:	undetermined
Flash point:	Not applicable
Flammability (solid, gaseous)	Contact with combustible material may cause fire.
Ignition temperature:	
Decomposition temperature:	170 - 180°C
Self-igniting:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.

Density at 20°C:	0.8 g/cm³
Solubility in / Miscibility with Water:	Partly soluble
pH-value (10 g/l) at 20°C:	10.5 / 11.5
Organic solvents:	0.0 %
Solids content:	100.0 %

10. Stability and Reactivity

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
Dangerous reactions	Reacts with strong oxidizing agents Reacts with alcohols, amines, aqueous acids and alkalis Reacts with flammable substances **NEVER MIX THIS PRODUCT WITH ORGANIC CHLORINE (TRICHLOR or DICHLOR) WITHIN THE SAME CONTAINER**
Dangerous decomposition: products	Poisonous gases/vapours

11. Toxicological Information

Acute toxicity: LD/LC50 values relevant for classification:

7778-54-3	calcium hypochlorite	Oral LD50	850 mg/kg (rat)
1305-62-0	calcium dihydroxide	Oral LD50	7340 mg/kg (rat)
10043-52-4	calcium chloride	Oral LD50	1000 mg/kg (rat)

Primary irritant effect:	
on the skin:	Caustic effect on skin and mucous membranes.
on the eye:	Strong caustic effect.
Sensitization:	No sensitizing effects known.
Additional toxicological information:	The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version. Harmful Corrosive Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of oesophagus and stomach.

12. Ecological Information

Ecotoxical effects:

Acquatic toxicity:

Oral LC50 - 48 hrs	0.11 mg/l (daphnia magna)
LC50 - 96 hrs	0.088 mg/l (bluegill sunfish)
	0.16 mg/l (rainbow trout)
Remark:	Very toxic for fish
Oral LD/LC50	> 3474 ppm (bobwhite quail)
	> 5000 ppm (mallard duck)
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.
	Must not reach sewage water or drainage ditch undiluted or un-neutralized.
	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

13. Disposal Considerations

Product:

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.

14. Transportation Information

Land transport ADR/RID (cross-border)

ADR/RID class:	5.1 (O2) Oxidising substances.
Danger code (Kemler):	50
UN-Number:	2880
Packaging group:	II
Hazard label	5.1
Special marking:	Symbol (fish and tree)
Description of goods:	2880 CALCIUM HYPOCHLORITE, HYDRATED MIXTURE
Limited quantities (LQ)	LQ11

Maritime transport IMDG:

IMDG Class:	5.1
UN Number:	2880
Label	5.1
Packaging group:	II
EMS Number:	F-H,S-Q
Marine pollutant:	Yes Symbol (fish and tree)
Proper shipping name:	CALCIUM HYPOCHLORITE, HYDRATED MIXTURE

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class:	5.1
UN/ID Number:	2880
Label	5.1
Packaging group:	II
Proper shipping name:	CALCIUM HYPOCHLORITE, HYDRATED MIXTURE
UN "Model Regulation":	UN2880, CALCIUM HYPOCHLORITE, HYDRATED MIXTURE, 5.1, II

15. Regulatory Information

Labelling according to EU guidelines:
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

BPD labelling
- Best before : see date on packaging
- Dispose of this material and its container to hazardous or special waste collection point.
- Providing this container when empty is thoroughly rinsed out in the pool, it may be disposed of via the recycling scheme

Code letter and hazard designation of product:

C Corrosive
O Oxidising
N Dangerous for the environment

Risk phrases:
R8 Contact with combustible material may cause fire.
R22 Harmful if swallowed.
R31 Contact with acids liberates toxic gas.
R34 Causes burns.

	R50 Very toxic to aquatic organisms.
Safety phrases:	S1/2 Keep locked up and out of the reach of children. S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S29 Do not empty into drains. S36/37/39 Wear suitable protective clothing, gloves and eye/face protection. S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S61 Avoid release to the environment. Refer to special instructions/safety data sheets.
Special labelling of certain preparations:	Warning! Do not use together with other products. May release dangerous gases (chlorine).
National regulations	Waterhazard class: Water hazard class 2 (Self-assessment): hazardous for water.

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 R-phrases	R22 Harmful if swallowed. R31 Contact with acids liberates toxic gas. R34 Causes burns. R36 Irritating to eyes. R41 Risk of serious damage to eyes. R50 Very toxic to aquatic organisms. R8 Contact with combustible material may cause fire.

Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication; however no guarantee is made to its accuracy. The information given is prepared only as guidance for safe handling, use, processing, storage, transportation, disposal and release and should not be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material when used in combination with any other materials or in any process, unless specified in this Safety Data Sheet.
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