SAFETY DATA SHEET

HTH GRANULES

mhth004

1. Identification of the substance/preparation and of the company/undertaking

Product name : **HTH GRANULES**

Supplier : Albion Chemical Distribution
Albion House
Rawdon Park
Green Lane
Yeadon
Leeds
LS19 7XX

Chemical product name : CALCIUM HYPOCHLORITE

EMERGENCY ONLY TELEPHONE NUMBER : (N.C.E.C. CULHAM) 01865 407333

Telephone No. : (0113) 3879200

Fax No. : (0113) 3879280

Formula : ACTIVE INGREDIENT: $Ca(OCl)_2$

2. Composition/information on ingredients

Substance/Preparation : Substance

Chemical name*	CAS No.	%	EC Number	Symbol	R-Phrases
1) CALCIUM HYPOCHLORITE	7778-54-3	50-100	231-908-7	O, C, N	R8, R22, R31, R34, R50

*** Occupational Exposure Limit(s), if available, are listed in Section 8**

Composition Calcium hypochlorite granules 65-75%
Water hydrate 5.5-8.5%

CAS No. 7778-54-3

EINECS Number 231-908-7

3. Hazards identification

Physical/chemical Hazards : Contact with combustible material may cause fire.

Human health hazards : Contact with combustible material may cause fire. Harmful if swallowed. Contact with acids liberates toxic gas. Causes burns. Very toxic to aquatic organisms.

Environmental hazards : Very toxic to aquatic organisms.

4. First-aid measures

First-Aid measures

Inhalation : Remove from exposure. Keep warm and at rest. If there is difficulty in breathing, give oxygen. If breathing stops or shows signs of failing, give artificial respiration. Do not use mouth to mouth ventilation. Obtain medical attention urgently.

Ingestion : Wash out mouth with water. Give sips of cold water or milk to soothe the affected parts. Do not induce vomiting. Obtain medical attention.

Skin contact : Immediately flood the skin with large quantities of water, preferably under a shower. Remove contaminated clothing as washing proceeds. Obtain medical attention if blistering occurs or redness persists.

Eye Contact : Immediately flood the eye with plenty of water for at least 10 minutes, holding the eye open. Obtain medical attention urgently.

Effects and symptoms

Inhalation : Exposure to dust may have the following effects:- severe irritation of nose, throat and respiratory tract. coughing. difficulty with breathing. dizziness. nausea.
Exposure to decomposition products may have the following effects:- lung damage. pulmonary oedema.

Ingestion : Swallowing may have the following effects:- corrosion of mouth, throat and digestive tract. vomiting. abdominal pain.

Skin contact : Material will cause severe irritation and may cause chemical burns. Aqueous solutions may cause more severe effects including chemical burns.

Eye Contact : Dust will cause severe conjunctival irritation, corneal damage, and may result in loss of vision.

Aggravating conditions : Repeated exposure of the eyes to a low level of dust can produce eye irritation. Repeated skin exposure can produce local skin destruction or dermatitis. Repeated inhalation of dust can produce varying degrees of respiratory irritation or lung damage.

Notes to physician : Treatment may be needed for pulmonary oedema, or respiratory failure, which may be delayed following severe over exposure.

5. Fire-fighting measures

Extinguishing Media

Suitable : Select extinguishing agent appropriate to other materials involved. Use water spray. Do not use dry extinguishers containing ammonium compounds- see stability and reactivity. Keep containers and surroundings cool with water spray.

Unusual fire/explosion Hazards : Hazardous Combustion Products : OXYGEN , CHLORINE / HYDROGEN CHLORIDE GAS

This product liberates oxygen when heated which may cause spontaneous combustion in contact with oxidisable materials.
This product may give rise to hazardous fumes in a fire.
Can react violently and explosively, when in contact with finely divided organic material, acids and reducing agents.

Hazardous thermal (de)composition products : Poisonous gases/vapours.

Special fire-fighting procedures : Fire fighters should wear self-contained positive pressure breathing apparatus (SCBA) and full turnout gear.

Protection of fire-fighters : Wear full protective clothing and self-contained breathing apparatus.

6. Accidental release measures

Personal Precautions : Ventilate the area to dispel possible toxic decomposition fumes. Wear appropriate protective clothing. Eliminate all sources of ignition. Consider need for evacuation. Wear respiratory protection.

Environmental precautions and cleanup methods : Sweep up into suitable containers for recovery or disposal. Avoid creating a dust. Contaminated organic material (paper, wood etc) may be dangerously combustible.

: Try to prevent the material from entering drains or water courses. Advise Authorities if spillage has entered water course or sewer or has contaminated soil or vegetation.

7. Handling and storage

Handling : Use in well ventilated area. Avoid inhaling dust. Avoid contact with eyes, skin and clothing. Emergency shower and eye wash facilities should be readily available. Avoid contact with water or moist air. Avoid creating a dust. Keep container tightly closed when not in use.

Storage : Storage area should be: cool. dry. well ventilated. out of direct sunlight.
Store away from sources of heat or ignition. Keep containers closed to prevent ingress of moisture. Storage temperature should be kept below 52 °C. Protect drums against physical damage. Drums may rupture if exposed to heat.

Packaging materials

Recommended use : Use original container.

8. Exposure controls/personal protection

Engineering measures : Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Hygiene measures : Wash hands, forearms, and face thoroughly after handling compounds and before eating, smoking, using lavatory, and at the end of day.

Workplace Exposure Limits : Not available.

Personal protective equipment

Respiratory system : Dust respirator.

Skin and body : Wear: PVC or other impermeable suit. PVC or rubber boots.

Hands : PVC or rubber gloves.

Eyes : Chemical goggles.

9. Physical and chemical properties

Physical state : Solid. Powder.

Colour : White. to Off-white.

Odour : Pungent. Chlorine-like.

Boiling point : Decomposes at 175oC

Density : 0.900 g/cm3 at 20oC

Solubility : 18% at 20 °C.

pH : 10.5-11.5 in 10g/l solution at 20oC.

Flash point : Not available.

10. Stability and reactivity

Stability : The product is stable.

Conditions to Avoid : Temperatures in excess of 52 °C. Exposure to direct sunlight. Exposure to water or moisture.

Materials to avoid : eacts with strong oxidizing agents, alcohols, amines, aqueous acids, alkalis and flammable substances.

Hazardous decomposition products : Poisonous gases/vapours.

11. Toxicological information

Local effects

Skin irritation : Hazardous in case of skin contact (corrosive).

Eye irritation : Extremely hazardous in case of eye contact (corrosive).

Acute toxicity : Harmful by ingestion. Oral LD50 (rat) 850mg/kg.

Chronic toxicity : Repeated exposure of the eyes to a low level of dust can produce eye irritation. Repeated skin exposure can produce local skin destruction or dermatitis. Repeated inhalation of dust can produce varying degrees of respiratory irritation or lung damage.

12. Ecological information

Ecotoxicity : Very toxic to fish.

Do not allow product to reach ground water, water course or sewage water.
Must not reach sewage water or drainage ditch undiluted or unneutralized.
Danger to drinking water if even small quantities leak into the ground.
Also poisonous fgor fish and plankton in water bodies.

13. Disposal considerations

Methods of disposal ; Waste of residues ; Contaminated packaging : Dispose of in accordance with all applicable local and national regulations.

Waste Classification : Not applicable.

14. Transport information

International transport regulations

UN :	**UN number**	2880
UN :	**Proper shipping name**	Calcium hypochlorite, hydrated.
UN :	**Class**	5.1
UN :	**Packing group**	II
UN :	**Label**	
ADR/RID :	**Class**	5.1
ADR/RID :	**Item Number**	15(b)
ADR/RID :	**Hazard identification number**	50
TREMCARD TEC(R)		51G02
IMDG :	**Packing group**	II
IMDG :	**Class**	5.1
IATA :	**Packing group**	II
IATA :	**Class**	5.1

15. Regulatory information

EU Regulations

Hazard symbol(s) :

Classification : Oxidizing, Corrosive, 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 reach of children. S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. 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.
Contains	:	- CALCIUM HYPOCHLORITE
Product Use	:	Classification and labelling have been performed according to EU directives 67/548/EEC, 88/379/EEC, including amendments and the intended use. - Consumer applications.

16. Other information

HISTORY *(Please note thet dates are in American format [month/day/year])*

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Prepared by	:	**Michael Hale / Alistair Hunter**

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