



SAFETY DATA SHEET HTH GRANULES

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

1.1. Product identifier

Product name	HTH GRANULES
Product number	10602
Synonyms; trade names	CALCIUM HYPOCHLORITE, SUPERSHOCK GRANULES, FI CLOR S/FAST, BRISWIM S/SHOCK, EASIFLO, HTH SHOCK, CALC HYPOCHLORITE 65% GRAN

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

Identified uses	Water Treatment Biocide
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1.3. Details of the supplier of the safety data sheet

Supplier	Univar Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 sds@univar.com +44 1274 267306
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1.4. Emergency telephone number

Emergency Contact Number (Office Hours)	+44 1274 267346
Emergency Contact Number (Outside Office Hours)	+441865 407333
Sds No.	10602

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards	Ox. Sol. 2 - H272
Health hazards	Acute Tox. 4 - H302 Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335
Environmental hazards	Aquatic Acute 1 - H400

Classification (67/548/EEC or 1999/45/EC) Xn;R22. C;R34. O;R8. N;R50. R31.

2.2. Label elements

HTH GRANULES

Pictogram



Signal word

Danger

Hazard statements

H272 May intensify fire; oxidiser.
 H302 Harmful if swallowed.
 H314 Causes severe skin burns and eye damage.
 H335 May cause respiratory irritation.
 H400 Very toxic to aquatic life.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P273 Avoid release to the environment.
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P501 Dispose of contents/container in accordance with national regulations.

Supplemental label information

EUH031 Contact with acids liberates toxic gas.

Contains

CALCIUM HYPOCHLORITE, CALCIUM HYDROXIDE, Calcium chlorate

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

CALCIUM HYPOCHLORITE

60-100%

CAS number: 7778-54-3

EC number: 231-908-7

M factor (Acute) = 10

Classification

Ox. Sol. 2 - H272

Acute Tox. 4 - H302

Skin Corr. 1B - H314

Eye Dam. 1 - H318

STOT SE 3 - H335

Aquatic Acute 1 - H400

Classification (67/548/EEC or 1999/45/EC)

O;R8 C;R34 Xn;R22 R31 N;R50

CALCIUM CHLORIDE

1-5%

CAS number: 10043-52-4

EC number: 233-140-8

REACH registration number: 01-2119494219-28

Classification

Eye Irrit. 2 - H319

Classification (67/548/EEC or 1999/45/EC)

Xi;R36

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CALCIUM HYDROXIDE		1-10%
CAS number: 1305-62-0	EC number: 215-137-3	REACH registration number: 01-2119475151-45
Classification Skin Irrit. 2 - H315 Eye Dam. 1 - H318 STOT SE 3 - H335	Classification (67/548/EEC or 1999/45/EC) Xi; R41, R37/38	
Calcium chlorate		1-5%
CAS number: 10137-74-3	EC number: 233-378-2	
Classification Ox. Sol. 2 - H272	Classification (67/548/EEC or 1999/45/EC) O; R7	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Composition comments The data shown are in accordance with the latest EC Directives.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention.
Ingestion	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Rinse mouth thoroughly with water. Give plenty of water to drink. Do not induce vomiting. Get medical attention.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention immediately. Continue to rinse.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation	Irritating to respiratory system.
Ingestion	May cause chemical burns in mouth, oesophagus and stomach. May cause stomach pain or vomiting.
Skin contact	Chemical burns.
Eye contact	Severe irritation, burning and tearing. May cause chemical eye burns.

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

Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Water. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Powder.

5.2. Special hazards arising from the substance or mixture

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Specific hazards	Chlorine. Carbon monoxide (CO). Carbon dioxide (CO ₂).
Hazardous combustion products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.
5.3. Advice for firefighters	
Protective actions during firefighting	Contain and collect extinguishing water.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Follow precautions for safe handling described in this safety data sheet. Avoid inhalation of dust and contact with skin and eyes. Provide adequate ventilation.
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6.2. Environmental precautions

Environmental precautions	Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.
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6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Remove spillage with vacuum cleaner. If not possible, collect spillage with shovel, broom or the like. Flush contaminated area with plenty of water. Collect and place in suitable waste disposal containers and seal securely.
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6.4. Reference to other sections

Reference to other sections	For personal protection, see Section 8. For waste disposal, see Section 13.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions	Avoid spilling, skin and eye contact. Provide adequate ventilation. Avoid generation and spreading of dust. Avoid inhalation of dust.
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7.2. Conditions for safe storage, including any incompatibilities

Storage precautions	Store in closed original container at temperatures between 0°C and 30°C. Suitable container materials: Polyethylene. Polyethylene-lined mild steel. Store away from the following materials: Reducing agents. Acids. Keep away from flammable and combustible materials. Keep away from food, drink and animal feeding stuffs.
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Storage class	Oxidiser storage.
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7.3. Specific end use(s)

Specific end use(s)	The identified uses for this product are detailed in Section 1.2.
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SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

CALCIUM HYDROXIDE

Long-term exposure limit (8-hour TWA): WEL 5 mg/m³

WEL = Workplace Exposure Limit

CALCIUM CHLORIDE (CAS: 10043-52-4)

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DNEL

Industry - Inhalation; Long term : 5 mg/m³
 Industry - Inhalation; Short term : 10 mg/m³
 Consumer - Inhalation; Long term : 2.5 mg/m³
 Consumer - Inhalation; Short term : 5 mg/m³

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Avoid inhalation of dust. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

Wear tight-fitting, chemical splash goggles or face shield.

Hand protection

Use protective gloves. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Neoprene gloves are recommended. EN 374

Hygiene measures

Provide eyewash station and safety shower. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace. When using do not eat, drink or smoke.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Particulate filter, type P2. EN 136/140/145/143/149

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Granules.
Colour	White.
Odour	Characteristic.
Odour threshold	Data lacking.
pH	pH (diluted solution): 10.5 - 11.5 1% @ 20 °C
Melting point	100°C
Initial boiling point and range	Not applicable.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Upper/lower flammability or explosive limits	Not applicable.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	0.9 g/cm ³ @ 20°C
Solubility(ies)	217 g/l water @ 20°C
Auto-ignition temperature	Not applicable.
Decomposition Temperature	170-180°C

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Viscosity Not applicable.

Explosive properties Data lacking.

9.2. Other information

Other information Not determined.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity The following materials may react with the product: Acids. Alkalis. Oxidising materials. Alcohols, glycols. Amines.

10.2. Chemical stability

Stability Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Contact with acids liberates toxic gas.

10.4. Conditions to avoid

Conditions to avoid Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials to avoid Strong acids. Strong oxidising agents. Strong alkalis. Alcohols, glycols. Amines.

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Chlorine.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 625.0

Acute toxicity - dermal

Notes (dermal LD₅₀) Data lacking.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Data lacking.

Skin corrosion/irritation

Animal data Data lacking.

Skin sensitisation

Skin sensitisation Data lacking.

Germ cell mutagenicity

Genotoxicity - in vitro Data lacking.

Carcinogenicity

Carcinogenicity Data lacking.

Reproductive toxicity

Reproductive toxicity - fertility Data lacking.

Specific target organ toxicity - single exposure

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STOT - single exposure Data lacking.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Data lacking.

Inhalation May cause respiratory irritation.

Ingestion Harmful if swallowed. May cause chemical burns in mouth, oesophagus and stomach.

Skin contact Irritating to skin. Causes burns.

Eye contact May cause chemical eye burns.

Toxicological information on ingredients.

CALCIUM HYPOCHLORITE

Acute toxicity - oral

ATE oral (mg/kg) 500.0

SECTION 12: Ecological Information

Ecotoxicity The product contains a substance which is very toxic to aquatic organisms.

12.1. Toxicity

Toxicity Very toxic to aquatic organisms.

Ecological information on ingredients.

CALCIUM HYPOCHLORITE

Toxicity Very toxic to aquatic organisms.

Acute aquatic toxicity

LE(C)₅₀ 0.01 < L(E)C₅₀ ≤ 0.1

M factor (Acute) 10

Acute toxicity - fish LC₅₀, 96 hours, 96 hours: 0.16 mg/l, *Onchorhynchus mykiss* (Rainbow trout)

12.2. Persistence and degradability

Persistence and degradability The product contains only inorganic substances which are not biodegradable.

Ecological information on ingredients.

CALCIUM HYPOCHLORITE

Persistence and degradability The product contains only inorganic substances which are not biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Ecological information on ingredients.

CALCIUM HYPOCHLORITE

Bioaccumulative potential No data available on bioaccumulation.

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12.4. Mobility in soil

Mobility No information available.

Ecological information on ingredients.

CALCIUM HYPOCHLORITE

Mobility No information available.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment Not applicable.

Ecological information on ingredients.

CALCIUM HYPOCHLORITE

Results of PBT and vPvB assessment Not applicable.

12.6. Other adverse effects

Other adverse effects Not known.

Ecological information on ingredients.

CALCIUM HYPOCHLORITE

Other adverse effects Not known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Waste is classified as hazardous waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Do not puncture or incinerate, even when empty.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General Wear protective clothing as described in Section 8 of this safety data sheet.

14.1. UN number

UN No. (ADR/RID) 2880

UN No. (IMDG) 2880

UN No. (ICAO) 2880

14.2. UN proper shipping name

Proper shipping name (ADR/RID) CALCIUM HYPOCHLORITE, HYDRATED or CALCIUM HYPOCHLORITE, HYDRATED MIXTURE

Proper shipping name (IMDG) CALCIUM HYPOCHLORITE, HYDRATED or CALCIUM HYPOCHLORITE, HYDRATED MIXTURE

Proper shipping name (ICAO) CALCIUM HYPOCHLORITE, HYDRATED or CALCIUM HYPOCHLORITE, HYDRATED MIXTURE

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Proper shipping name (ADN) CALCIUM HYPOCHLORITE, HYDRATED or CALCIUM HYPOCHLORITE, HYDRATED MIXTURE

14.3. Transport hazard class(es)

ADR/RID class 5.1

ADR/RID subsidiary risk

ADR/RID label 5.1

IMDG class 5.1

IMDG subsidiary risk

ICAO class/division 5.1

ICAO subsidiary risk

Transport labels



14.4. Packing group

ADR/RID packing group II

IMDG packing group II

ICAO packing group II

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

EmS F-H, S-Q

Emergency Action Code 1W

Hazard Identification Number (ADR/RID) 50

Tunnel restriction code (E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information required.

Annex II of MARPOL 73/78

and the IBC Code

SECTION 15: Regulatory information

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

National regulations The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).

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EU legislation Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
This product may impact SEVESO storage regulations.

Guidance CHIP for everyone HSG228.
Safety Data Sheets for Substances and Preparations.
Approved Classification and Labelling Guide (Sixth edition) L131.

Water hazard classification WGK 2

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision comments NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date 09/02/2015

Revision 04

Supersedes date 25/04/2014

SDS number 10602

SDS status Approved.

Signature K Winter

Risk phrases in full R8 Contact with combustible material may cause fire.
R22 Harmful if swallowed.
R31 Contact with acids liberates toxic gas.
R34 Causes burns.
R36 Irritating to eyes.
R38 Irritating to skin.
R41 Risk of serious damage to eyes.
R50 Very toxic to aquatic organisms.

Hazard statements in full H272 May intensify fire; oxidiser.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H400 Very toxic to aquatic life.

TURKISH SIGNATURE