

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

HTH GRANULES (ALL GRADES)

Version 4.0

Print Date 2018/04/10

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MSDS code: MHTH004

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

1.1. Product identifier

Trade name : HTH GRANULES (ALL GRADES)

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

Use of the Substance/Mixture : At this time we do not yet have information on identified uses. They will be included in this safety data sheet when available.

Uses advised against : At this moment we have not identified any uses advised against

1.3. Details of the supplier of the safety data sheet

Company : Brenntag UK Limited
Alpha House, Lawnswood Business Park
GB LS16 6QY Leeds

Telephone : +44 (0) 113 3879 200
Telefax : +44 (0) 113 3879 280
E-mail address : msds@brenntag.co.uk

1.4. Emergency telephone number

Emergency telephone number : Emergency only telephone number (open 24 hours):
+44 (0) 1865 407333 (N.C.E.C. Culham)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

REGULATION (EC) No 1272/2008			
Hazard class	Hazard category	Target Organs	Hazard statements
Oxidizing solids	Category 2	---	H272
Acute toxicity (Oral)	Category 4	---	H302
Skin corrosion	Category 1B	---	H314
Specific target organ toxicity - single exposure	Category 3	---	H335

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Acute aquatic toxicity

Category 1

H400

For the full text of the H-Statements mentioned in this Section, see Section 16.

Most important adverse effects

Human Health : See section 11 for toxicological information.
 Physical and chemical hazards : See section 9/10 for physicochemical information.
 Potential environmental effects : See section 12 for environmental information.

2.2. Label elements**Labelling according to Regulation (EC) No 1272/2008**

Hazard symbols :



Signal word : Danger

Hazard statements : H272 May intensify fire; oxidizer.
 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

General : P101 If medical advice is needed, have product container or label at hand.
 P102 Keep out of reach of children.
 P103 Read label before use.

Prevention : P220 Keep/Store away from clothing/ combustible materials.
 P220 Keep away from clothing and other combustible materials.
 P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
 P261 Avoid breathing 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/

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	P210	eye protection/ face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Response	: P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
	P303 + P361 + P353 + P310	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. Immediately call a POISON CENTER/doctor.
	P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P330	Rinse mouth.
	P363	Wash contaminated clothing before reuse.
	P391	Collect spillage.
	P310	Immediately call a POISON CENTER/doctor.
	P370 + P378	In case of fire: Use water spray to extinguish.
	P312	Call a POISON CENTER/doctor if you feel unwell.
	P301 + P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
	P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Storage	: P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
	P405	Store locked up.
Disposal	: P501	Dispose of contents/ container in accordance with the local regulations.

Additional Labelling:

EUH031 Contact with acids liberates toxic gas.

Hazardous components which must be listed on the label:

- calcium hypochlorite

2.3. Other hazards

For Results of PBT and vPvB assessment see section 12.5.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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Hazardous components	Amount [%]	Classification (REGULATION (EC) No 1272/2008)	
		Hazard class / Hazard category	Hazard statements
calcium hypochlorite			
Index-No. : 017-012-00-7	> 50 - < 100	Ox. Sol.2	H272
CAS-No. : 7778-54-3		Acute Tox.4	H302
EC-No. : 231-908-7		Skin Corr.1B	H314
		STOT SE3 Aquatic Acute1	H335 H400
Calcium dihydroxide			
CAS-No. : 1305-62-0	< 3	Eye Dam.1	H318
EC-No. : 215-137-3			
calcium chloride			
Index-No. : 017-013-00-2	< 2	Eye Irrit.2	H319
CAS-No. : 10043-52-4			
EC-No. : 233-140-8			
Calcium chlorate			
CAS-No. : 10137-74-3	< 2	Ox. Sol.2	H272
EC-No. : 233-378-2			

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	: Take off all contaminated clothing immediately.
If inhaled	: In case of accident by inhalation: remove casualty to fresh air and keep at rest. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.
In case of skin contact	: Wash off immediately with soap and plenty of water. Call a physician immediately.
In case of eye contact	: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult an eye specialist immediately. Go to an ophthalmic hospital if possible.
If swallowed	: Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician immediately.

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

Symptoms	: See Section 11 for more detailed information on health effects and symptoms.
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Effects : See Section 11 for more detailed information on health effects and symptoms.

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

Treatment : Treat symptomatically.
No further information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media : High volume water jet, Dry powder

5.2. Special hazards arising from the substance or mixture

Specific hazards during firefighting : The substance itself does not burn, but in contact with combustible substances it increases the risk of fire and can fuel any existing fire substantially. In the event of fire and/or explosion do not breathe fumes.

5.3. Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Wear personal protective equipment.
Further advice : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment. Keep away unprotected persons. Ensure adequate ventilation. Avoid contact with skin and eyes. Do not breathe gas/fumes/vapour/spray. For personal protection see section 8.

6.2. Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.

6.3. Methods and materials for containment and cleaning up

Methods and materials for containment and cleaning up : Use mechanical handling equipment. Keep in suitable, closed containers for disposal.
: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth,

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vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Further information : Treat recovered material as described in the section "Disposal considerations".

6.4. Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling : Keep container tightly closed. Avoid formation of respirable particles. Avoid contact with skin, eyes and clothing. Do not breathe vapours/dust. Use respirator with appropriate filter if vapours or aerosol are released. Use personal protective equipment. Emergency eye wash fountains and emergency showers should be available in the immediate vicinity.

Hygiene measures : Keep away from food, drink and animal feedingstuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of workday. Take off all contaminated clothing immediately. Provide adequate ventilation. Avoid contact with the skin and the eyes.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep only in the original container.

Advice on protection against fire and explosion : Contact with combustible material may cause fire. Keep away from sources of ignition - No smoking. Oxidizing

Further information on storage conditions : Keep tightly closed in a dry and cool place. Keep away from heat. Store away from flammable substances. Store away from reducing agents. Store away from acids.

Advice on common storage : Keep away from combustible material. Keep away from food, drink and animal feedingstuffs.

Storage temperature : < 35 °C

7.3. Specific end use(s)

Specific use(s) : No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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Component:	Calcium dihydroxide	CAS-No. 1305-62-0
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Other Occupational Exposure Limit Values

UK. EH40 Workplace Exposure Limits (WELs), Time Weighted Average (TWA):
5 mg/m³

EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU, Time Weighted Average (TWA):
5 mg/m³
Indicative

ELV (IE), Time Weighted Average (TWA):
5 mg/m³
Indicative OELV

8.2. Exposure controls

Appropriate engineering controls

Refer to protective measures listed in sections 7 and 8.

Personal protective equipment

Respiratory protection

Advice : In case of brief exposure or low pollution use breathing filter apparatus.
In case of intensive or longer exposure use self-contained breathing apparatus.

Filter Type : P2 filter

Hand protection

Advice : The glove material has to be impermeable and resistant to the product / the substance / the preparation.
Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).
Protective gloves should be replaced at first signs of wear.
The following materials are suitable:
polychloroprene
Neoprene gloves

Eye protection

Advice : Tightly fitting safety goggles

Skin and body protection

Advice : Impervious clothing

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Chemical resistant apron

Environmental exposure controls

General advice : Do not flush into surface water or sanitary sewer system.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Form	: tablet
Colour	: Whitish
Odour	: characteristic
Odour Threshold	: no data available
pH	: 10.5 - 11.5 (10 g/l ; 20 °C)
Melting point/range	: 100 °C
Boiling point	: no data available
Flash point	: no data available
Evaporation rate	: no data available
Flammability (solid, gas)	: Contact with combustible material may cause fire.
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: no data available
Relative vapour density	: no data available
Density	: 1.3 g/cm ³ (20 °C)
Water solubility	: 217 g/l (20 °C)
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition	: 170 - 180 °C
Viscosity, dynamic	: no data available
Explosivity	: Product is not explosive.

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Oxidizing properties : no data available

9.2. Other information

No further information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Advice : No information available.

10.2. Chemical stability

Advice : No decomposition if stored and applied as directed.
No further information available.

10.3. Possibility of hazardous reactions

Hazardous reactions : Contact with combustible material may cause fire. Strong oxidizing agents Amines and alcohols cause exothermic reactions. Contact with acids liberates very toxic gas. Reacts with alkalies.

10.4. Conditions to avoid

Conditions to avoid : > 35 °C

Thermal decomposition : 170 - 180 °C

10.5. Incompatible materials

Materials to avoid : Keep away from combustible material.

10.6. Hazardous decomposition products

Hazardous decomposition products : Toxic gases, chlorine oxides

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Data for the product

Acute toxicity

Oral

no data available

Inhalation

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no data available

Dermal

no data available

Irritation**Skin**

Result : corrosive effects

EyesResult : corrosive effects
Risk of serious damage to eyes.**Sensitisation**

Result : No sensitizing effect known.

CMR effects**CMR Properties**

Carcinogenicity : no data available

Mutagenicity : no data available

Reproductive toxicity : no data available

Specific Target Organ Toxicity**Single exposure**

no data available

Repeated exposure

no data available

Other toxic properties**Repeated dose toxicity**

no data available

Aspiration hazard

no data available

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Further information

Other relevant toxicity information : If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach.

Component: calcium hypochlorite **CAS-No.** 7778-54-3

Acute toxicity

Oral

LD50 : 850 mg/kg (Rat)

SECTION 12: Ecological information

12.1. Toxicity

Data for the product

Acute toxicity

Fish

LC50 : 0.088 mg/l (Lepomis macrochirus (Bluegill sunfish); 96 h) (Toxicity to fish) Very toxic to fish.

LC50 : 0.16 mg/l (Oncorhynchus mykiss (rainbow trout); 96 h)

Toxicity to daphnia and other aquatic invertebrates

LC50 : 0.11 mg/l (Daphnia magna (Water flea); 48 h) (Toxicity to daphnia)

Acute aquatic toxicity

Result : Very toxic to aquatic organisms.

12.2. Persistence and degradability

Data for the product

Persistence and degradability

Persistence

Result : Inorganic product which is not removable from water by biological processes.

12.3. Bioaccumulative potential

12.4. Mobility in soil

12.5. Results of PBT and vPvB assessment

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12.6. Other adverse effects

Data for the product

Additional ecological information

Result : Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.
Harmful effects to aquatic organisms due to pH-shift.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product : Disposal together with normal waste is not allowed. Special disposal required according to local regulations. Do not let product enter drains. Contact waste disposal services.

Contaminated packaging : Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning. Packagings that cannot be cleaned are to be disposed of in the same manner as the product.

European Waste Catalogue Number : No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.

SECTION 14: Transport information

14.1. UN number

||2880

14.2. UN proper shipping name

|| **ADR** : CALCIUM HYPOCHLORITE, HYDRATED MIXTURE
 || **RID** : CALCIUM HYPOCHLORITE, HYDRATED MIXTURE
 || **IMDG** : CALCIUM HYPOCHLORITE, HYDRATED MIXTURE

14.3. Transport hazard class(es)

|| ADR-Class : 5.1
 (Labels; Classification Code; Hazard identification No; Tunnel restriction code) 5.1; O2; 50; (E)

|| RID-Class : 5.1
 (Labels; Classification Code; Hazard identification No) 5.1; O2; 50

|| IMDG-Class : 5.1

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|| (Labels; EmS)

5.1; F-H, S-Q

14.4. Packaging group

|| ADR : II
 || RID : II
 || IMDG : II

14.5. Environmental hazards

|| Environmentally hazardous according to ADR : yes
 || Environmentally hazardous according to RID : yes
 || Marine Pollutant according to IMDG-Code : yes

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

IMDG : Not applicable.

SECTION 15: Regulatory information

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

15.2. Chemical safety assessment

no data available

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

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

Abbreviations and Acronyms

BCF	bioconcentration factor
BOD	biochemical oxygen demand
CAS	Chemical Abstracts Service

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CLP	Classification, Labelling and Packaging
CMR	carcinogenic, mutagenic or toxic to reproduction
COD	chemical oxygen demand
DNEL	derived no-effect level
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
LC50	median lethal concentration
LOAEC	lowest observed adverse effect concentration
LOAEL	lowest observed adverse effect level
LOEL	lowest observed effect level
NLP	no-longer polymer
NOAEC	no observed adverse effect concentration
NOAEL	no observed adverse effect level
NOEC	no observed effect concentration
NOEL	no observed effect level
OECD	Organisation for Economic Cooperation and Development
OEL	occupational exposure limit
PBT	persistent, bioaccumulative and toxic
PNEC	predicted no-effect concentration
STOT	specific target organ toxicity
SVHC	substance of very high concern
UVCB	substance of unknown or variable composition, complex reaction products or biological materials
vPvB	very persistent and very bioaccumulative

Further information

Key literature references and sources for data	:	Supplier information and data from the "Database of registered substances" of the European Chemicals Agency (ECHA) were used to create this safety data sheet.
Methods used for product classification	:	The classification for human health, physical and chemical hazards and environmental hazards were derived from a combination of calculation methods and if available test data.
Hints for trainings	:	The workers have to be trained regularly on the safe handling of the products based on the information provided in the Safety Data Sheet and the local conditions of the workplace. National regulations for the training of workers in the handling of hazardous materials must be adhered to.
Other information	:	The information provided in this Safety Data Sheet is correct to our knowledge at the date of its revision. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship.

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The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

|| Indicates updated section.