

**SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006**
**HTH Briquettes (All grades)**

Version 3.1

Print Date 2015/04/29

Revision date / valid from 2015/04/29

**MSDS code: MZZZ652**
**SECTION 1: Identification of the substance/mixture and of the company/undertaking**
**1.1. Product identifier**

Trade name : HTH Briquettes (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 & Ireland  
 Albion House, Rawdon Park  
 GB LS19 7XX Leeds Yeadon

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

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**

Directive 67/548/EEC or 1999/45/EC	
Hazard symbol / Category of danger	Risk phrases
Oxidising (O)	R 8
Corrosive (C)	R34
Harmful (Xn)	R22
Dangerous for the environment (N)	R50
	R31

For the full text of the R-phrases 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 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; 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

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.

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Prevention	:	P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
		P220	Keep/Store away from clothing/ combustible materials.
		P221	Take any precaution to avoid mixing with combustibles.
		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/ eye protection/ face protection.
Response	:	P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
		P303 + P361 + P353 + P310	IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. Immediately call a POISON CENTER or doctor/ physician.
		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.

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### 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

Hazardous components	Amount [%]	Classification (REGULATION (EC) No 1272/2008)		Classification (67/548/EEC)
		Hazard class / Hazard category	Hazard statements	
<b>calcium hypochlorite</b> Index-No. : 017-012-00-7 CAS-No. : 7778-54-3 EC-No. : 231-908-7	> 50 - < 100	Ox. Sol.2 Acute Tox.4 Skin Corr.1B STOT SE3 Aquatic Acute1	H272 H302 H314 H335 H400	Oxidising; O; R 8 Harmful; Xn; R22 R31 Corrosive; C; R34 Dangerous for the environment; N; R50
<b>Calcium dihydroxide</b> CAS-No. : 1305-62-0 EC-No. : 215-137-3	< 3	Eye Dam.1	H318	Irritant; Xi; R41
<b>calcium chloride</b> Index-No. : 017-013-00-2 CAS-No. : 10043-52-4 EC-No. : 233-140-8	< 2	Eye Irrit.2	H319	Irritant; Xi; R36
<b>Calcium chlorate</b> CAS-No. : 10137-74-3 EC-No. : 233-378-2	< 2	Ox. Sol.2	H272	Oxidising; O; R 8

For the full text of the R-phrases mentioned in this Section, see Section 16.

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.

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|-------------------------|---|
| 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

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

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|-----------|---|
| Treatment | : Treat symptomatically.<br>No further information available. |
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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

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|--------------------------------|---|
| 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

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| 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

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|---|--|
| Special protective equipment for firefighters | : In the event of fire, wear self-contained breathing apparatus. Wear personal protective equipment. |
| Further information                           | : 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

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| 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 |
|----------------------|---|

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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, 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. Oxidising

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.

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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

<b>Component:</b>	<b>Calcium dihydroxide</b>	<b>CAS-No.</b>
		<b>1305-62-0</b>

#### Other Occupational Exposure Limit Values

EU ELV, Time Weighted Average (TWA):  
5 mg/m<sup>3</sup>  
Indicative

EH40 WEL, Time Weighted Average (TWA):  
5 mg/m<sup>3</sup>

ELV (IE), Time Weighted Average (TWA):  
5 mg/m<sup>3</sup>

### 8.2. Exposure controls

#### Appropriate engineering controls

Refer to protective measures listed in sections 7 and 8.

#### Personal protective equipment

##### *Respiratory protection*

Advice : When aerosol or mist is formed use suitable respiratory protection.  
(in case of higher concentration)

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

**HTH Briquettes (All grades)***Eye protection*

Advice : Tightly fitting safety goggles

*Skin and body protection*

Advice : impervious clothing  
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 <sup>3</sup> (20 °C)
Water solubility	:	217 g/l (20 °C)
Partition coefficient: n-octanol/water	:	no data available
Auto-ignition temperature	:	no data available



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Thermal decomposition	:	170 - 180 °C
Viscosity, dynamic	:	no data available
Explosivity	:	Product is not explosive.
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 alkalis.

**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**

**Acute toxicity**

**Oral**

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no data available

**Inhalation**

no data available

**Dermal**

no data available

**Irritation****Skin**

Result : corrosive effects

**Eyes**

Result : 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**

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no data available

### Aspiration hazard

no data available

### 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.

<b>Component:</b>	<b>calcium hypochlorite</b>	<b>CAS-No.</b> <b>7778-54-3</b>
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### Acute toxicity

#### Oral

LD50 : 850 mg/kg (Rat)

## SECTION 12: Ecological information

### 12.1. Toxicity

#### 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

#### Persistence and degradability

##### Persistence

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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

### 12.6. Other adverse effects

#### 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

1748

### 14.2. UN proper shipping name

ADR : CALCIUM HYPOCHLORITE MIXTURE, DRY  
RID : CALCIUM HYPOCHLORITE MIXTURE, DRY  
IMDG : CALCIUM HYPOCHLORITE MIXTURE, DRY

### 14.3. Transport hazard class(es)

ADR-Class : 5.1

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(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
(Labels; EmS)	5.1; F-H, S-Q

### 14.4. Packaging group

ADR	: III
RID	: III
IMDG	: III

### 14.5. Environmental hazards

Labeling according to 5.2.1.8 ADR	: Fish and tree
Labeling according to 5.2.1.8 RID	: Fish and tree
Labeling according to 5.2.1.6.3 IMDG	: Fish and tree
Classification as environmentally hazardous according to 2.9.3 IMDG	: 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 R-phrases referred to under sections 2 and 3.

R 8	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.
R41	Risk of serious damage to eyes.
R50	Very toxic to aquatic organisms.

**HTH Briquettes (All grades)****Full text of H-Statements referred to under sections 2 and 3.**

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.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.

**Further information**

Key literature references : Supplier information and data from the "Database of registered substances" of the European Chemicals Agency (ECHA) were used to create this safety data sheet.

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. 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.