

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 24.09.2015

Rev. Index : 38

Revision: 24.09.2015

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

1.1 Product identifier

Trade name: **hth™ easiflo BRIQUETTE**

Article number: 11601 AUK 8

REGULATION (EC) No 1272/2008 - ANNEX VI - International Chemical Identification calcium hypochlorite

CAS Number:

7778-54-3

EC number:

231-908-7

Index number:

017-012-00-7

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

Sector of Use

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

SU21 Consumer uses: Private households / general public / consumers

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Product category

PC8 Biocidal products (e.g. Disinfectants, pest control)

PC37 Water treatment chemicals

Application of the substance / the mixture Water disinfectant

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Arch Chemicals Ltd now part of

LONZA SPECIALTY INGREDIENTS

Wheldon Road - Castleford - West Yorkshire WF10 2JT - ENGLAND

Telephone: + 44 (0) 1977 714 100

Fax: + 44 (0) 870 889 5277

framsds-reach.france.euwater@lonza.com

1.4 Emergency telephone number:

Europe >>> NCEC - Tel. +44 (0)1235 239 670

Africa & Middle East >>> NCEC - Tel. +44 (0)1235 239 671

N.AMERICA >>> ACEAN (Arch Chemicals Emergency Action Network) - Tel. +1 423 780 2970}

Numéro ORFILA : 01 45 42 59 59

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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS03 flame over circle

Ox. Sol. 2 H272 May intensify fire; oxidiser.



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.



GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

STOT SE 3 H335 May cause respiratory irritation.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

Hazard pictograms



GHS03 GHS05 GHS07 GHS09

Signal word Danger

Hazard-determining components of labelling:

calcium hypochlorite

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

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.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. 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.

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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.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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/doctor.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use for extinction: Water.
P391	Collect spillage.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container to special treatment scheme according to official regulations.

Additional information:

EUH031 Contact with acids liberates toxic gas.

EUH206 Warning! Do not use together with other products. May release dangerous gases (chlorine).

2.3 Other hazards

The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.

Results of PBT and vPvB assessment**PBT:** Not applicable.**vPvB:** Not applicable.**SECTION 3: Composition/information on ingredients****3.1 Chemical characterisation: Substances****CAS No. Description:**

7778-54-3 calcium hypochlorite

Identification number(s):**EC number:** 231-908-7**Index number:** 017-012-00-7**Impurities and stabilising additives:**

CAS: 471-34-1 calcium carbonate

EINECS: 207-439-9

CAS: 10043-52-4 calcium chloride

EINECS: 233-140-8

CAS: 1305-62-0 calcium dihydroxide

EINECS: 215-137-3

CAS: 10137-74-3 calcium chlorate

EINECS: 233-378-2

CAS: 7647-14-5 sodium chloride

EINECS: 231-598-3

⚠ Eye Irrit. 2, H319

⚠ Eye Dam. 1, H318

⚠ Ox. Sol. 2, H272

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Dangerous components:

CAS: 7778-54-3	calcium hypochlorite	50-<100%
EINECS: 231-908-7	⚠ Ox. Sol. 2, H272; ⚠ Skin Corr. 1B, H314; ⚠ Aquatic Acute 1, H400; ⚠ Acute Tox. 4, H302	
CAS: 10043-52-4	calcium chloride	< 2%
EINECS: 233-140-8	⚠ Eye Irrit. 2, H319	
CAS: 1305-62-0	calcium dihydroxide	< 3%
EINECS: 215-137-3	⚠ Eye Dam. 1, H318	
CAS: 10137-74-3	calcium chlorate	< 2%
EINECS: 233-378-2	⚠ Ox. Sol. 2, H272	

SECTION 4: First aid measures**4.1 Description of 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.

4.2 Most important symptoms and effects, both acute and delayed

Breathing difficulty

Coughing

Nausea

Gastric or intestinal disorders.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing agents** Water spray**For safety reasons unsuitable extinguishing agents** Extinguishing powder.**5.2 Special hazards arising from the substance or mixture**

Carbon monoxide (CO)

Hydrogen chloride (HCl)

5.3 Advice for firefighters**Protective equipment:** Mount respiratory protective device.**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Mount respiratory protective device.

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Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:

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.

6.3 Methods and material for containment and cleaning up:

Use neutralising agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

6.4 Reference to other sections

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

Any unavoidable deposit of dust must be regularly removed.

Thorough dedusting.

Handling

DO NOT MIX WITH OTHER PRODUCTS

DO NOT DISSOLVE BEFORE USE

Information about fire - and explosion protection: Substance/product is oxidising when dry.**7.2 Conditions for safe storage, including any incompatibilities****Storage****Requirements to be met by storerooms and 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

Store only in unopened original receptacles.

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.**7.3 Specific end use(s)** No further relevant information available.**SECTION 8: Exposure controls/personal protection****Additional information about design of technical facilities:** No further data; see item 7.**8.1 Control parameters****Ingredients with limit values that require monitoring at the workplace:** Not required.**Additional information:** The lists valid during the making were used as basis.

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8.2 Exposure controls**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:

Neoprene gloves



Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
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.

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.

Body protection: Protective work clothing.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties**General Information****Appearance:**

Form:	Tablets
Colour:	Whitish
Odour:	Characteristic
Odour threshold:	Not determined.

pH-value at 25 °C:	11.5
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Change in condition

Melting point/Melting range:	100 °C (Zers.) (Decomp.)
Boiling point/Boiling range:	undetermined

Flash point:	Not applicable
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Flammability (solid, gaseous)	Contact with combustible material may cause fire.
Ignition temperature:	
Decomposition temperature:	170 - 180 °C
Self-igniting:	Not determined.
Danger of explosion:	Not determined.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapour pressure:	Not applicable.
Density at 20 °C:	1.3 g/cm ³
Relative density	Not determined.
Vapour density	Not applicable.
Evaporation rate	Not applicable.
Solubility in / Miscibility with	
Water at 20 °C:	217 g/l
Partition coefficient (n-octanol/water):	Not determined.
Viscosity:	
dynamic:	Not applicable.
kinematic:	Not applicable.
Organic solvents:	0.0 %
Solids content:	100.0 %
9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

NEVER MIX THIS PRODUCT WITH ORGANIC CHLORINE (TRICHLOR or DICHLOR) WITHIN THE SAME CONTAINER

Reacts with strong oxidizing agents

Reacts with alcohols, amines, aqueous acids and alkalis

Reacts with flammable substances

10.4 Conditions to avoid No further relevant information available.

10.5 Incompatible materials: Warning! Do not use together with other products. May release dangerous gases (chlorine).

10.6 Hazardous decomposition products: Poisonous gases/vapours

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD/LC50 values relevant for classification:

7778-54-3 calcium hypochlorite

Oral LD50 850 mg/kg (rat)

Dermal LD50 > 2000 mg/kg mg/kg (rabbit)

Inhalative LD50 1300 mg/cm³ (rat)

Primary irritant effect:

Skin corrosion/irritation Caustic effect on skin and mucous membranes.

Serious eye damage/irritation Strong caustic effect.

Respiratory or skin sensitisation No sensitising effects known.

Additional toxicological information:

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

7778-54-3 calcium hypochlorite

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)

12.2 Persistence and degradability Anorganic product, is not eliminable from water by means of biological cleaning processes.

12.3 Bioaccumulative potential No further relevant information available.

12.4 Mobility in soil No further relevant information available.

Ecotoxicological effects:

Remark: Very toxic for fish

Additional ecological information:

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 unneutralised.

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

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation

Must be specially treated adhering to official regulations.

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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.

SECTION 14: Transport information

14.1 UN-Number**ADR, IMDG, IATA**

UN1748

14.2 UN proper shipping name**ADR**1748 CALCIUM HYPOCHLORITE MIXTURE, DRY,
ENVIRONMENTALLY HAZARDOUS**IMDG**

CALCIUM HYPOCHLORITE MIXTURE, DRY, MARINE POLLUTANT

IATA

CALCIUM HYPOCHLORITE MIXTURE, DRY

14.3 Transport hazard class(es)**ADR****Class**

5.1 (O2) Oxidising substances.

Label

5.1

IMDG**Class**

5.1 Oxidising substances.

Label

5.1

IATA**Class**

5.1 Oxidising substances.

Label

5.1

14.4 Packing group**ADR, IMDG, IATA**

III

14.5 Environmental hazards:**Marine pollutant:**

Yes

Symbol (fish and tree)

Special marking (ADR):

Symbol (fish and tree)

14.6 Special precautions for user

Warning: Oxidising substances.

Danger code (Kemler):

50

EMS Number:

F-H,S-Q

Segregation groups

Hypochlorites

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

Not applicable.

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Transport/Additional information:**ADR****Excepted quantities (EQ):**

E1

Limited quantities (LQ)

5 kg

Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

Transport category

3

Tunnel restriction code

E

IMDG**Limited quantities (LQ)**

5 kg

Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

UN "Model Regulation":UN1748, CALCIUM HYPOCHLORITE MIXTURE, DRY,
ENVIRONMENTALLY HAZARDOUS, 5.1, III**SECTION 15: Regulatory information****Directive 98/8/EC**

Best before : see date on packaging

Providing this container when empty is thoroughly rinsed out in the pool, it may be disposed of via the recycling scheme

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**National regulations****Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**SECTION 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 phrases

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.

H400 Very toxic to aquatic life.

Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

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LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Ox. Sol. 2: Oxidising Solids, Hazard Category 2

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1

*** Data compared to the previous version altered.**