

Product Brick and Patio Buster
 Revision date 1st April 2020
 Revision 1



Safety Data Sheet (SDS)

Section 1: Identification of the substance/preparation and of the company/undertaking

1.1 Product identifier

Product name Brick and Patio Buster
Synonyms, Trade names No information available.

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

Identified uses Cleaning agent.
Uses advised against Any other purpose.

1.3 Details of the supplier of the safety data sheet

Supplier Emerald Clover Ltd.
 Drumduffy
 Drumkeeran
 Co. Leitrim
 N41 T998
 Ireland
 Tel: 071 96 48008
 info@emeraldclover.ie

Contact person

1.4 Emergency telephone number

Emergency telephone Emergency medical information: 8am-10pm (seven days) contact National Poisons Information Centre, Beaumont Hospital, Dublin 9. Tel 01 8092566
National emergency telephone number Call 999 or 112.

Section 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (EC 1272/2008)
 Physical and chemical hazards Me. Corr 1 - H290
 Human health Skin Corr. 1B - H314, Eye Dam. 1 - H318, STOT SE 3 - H335
 Environment Aquatic Acute 1 - H400

2.2 Label elements

Contains SODIUM HYPOCHLORITE 5 - 16%
Detergent labeling ≥5% <15% chlorine-based bleaching agents

Label in accordance with (EC) no. 1272/2008



Signal word Danger

Hazard statements
 H290 May be corrosive to metals.
 H314 Causes severe skin burns and eye damage.
 H335 May cause respiratory irritation.
 H400 Very toxic to aquatic life.

Precautionary statements Prevention

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 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

Storage

P405 Store locked up.

EUH statements

EUH031 Contact with acids liberates toxic gas.

2.3 Other hazards

None known.

Section 3: Composition/identification of ingredients

3.1 Substance

Not applicable.

3.2 Mixtures

Name	Product identifier	Reg. EU 1272/2008	%
SODIUM HYPOCHLORITE 5 - 16%	CAS-No.: 7681-52-9 EC No.: 231-668-3 REACH Reg No.: 01-2119488154-34-0047	Skin Corr. 1B - H314, Eye Dam. 1 - H318, STOT SE 3 - H335, Me. Corr 1 - H290, Aquatic Acute 1 - H400	5-<16%

The full text for all 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

General information

As a general rule, in case of doubt or if symptoms persist, always call a doctor. Seek medical attention for all burns and eye injuries, regardless how minor they may seem. First aid personnel must be aware of own risk during rescue. Provide general first aid, rest, warmth and fresh air.

Inhalation

Move the exposed person to fresh air at once. If breathing is difficult, oxygen should be administered by qualified personnel. If not breathing, give artificial respiration. Get prompt medical attention.

Ingestion

Get medical attention immediately. Do not induce vomiting. Provided the patient is fully conscious, washout mouth with water. Never give anything by mouth to an unconscious person. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs.

Skin contact

SPEED IS ESSENTIAL. Take off contaminated clothing and shoes immediately. Promptly flush contaminated skin with water. Continue to rinse for at least 15 minutes. Seek medical attention immediately.

Eye contact

SPEED IS ESSENTIAL. Avoid contaminating unaffected eye. Wash thoroughly with soft, clean water for 15 minutes holding the eyelids open. Remove contact lenses if present and easy to do so. Get medical attention immediately. In the case of difficulty of opening the lids, administer an analgesic eye wash (oxybuprocaine).

4.2 Most important symptoms and effects, both acute and delayed

General information

The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation

Irritating to respiratory system. Symptoms: Breathing difficulties, cough, chemical pneumonitis, pulmonary oedema - Repeated or prolonged exposure: Nose bleeds, chronic bronchitis.

Ingestion

Severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach. Risk of shock and respiratory disorder. Symptoms: Nausea, abdominal

Skin contact	pain, bloody vomiting, diarrhoea, suffocation, cough, and severe shortness of breath. Risk of chemical pneumonitis from product inhalation.
Eye contact	Corrosive! Can cause redness, pain, and severe skin burns. Symptoms: Redness, swelling of tissue, burns, ulceration.
	Corrosive! Vapours are irritating and may cause damage to the eyes. May cause irreversible eye damage. May cause blindness. Symptoms: Redness, lachrymation, swelling of tissue, burn.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to the physician	Treat symptomatically.
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Section 5: Fire-fighting measures

5.1 Extinguishing media

Extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	No unsuitable extinguishing media identified.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products	Hazardous decomposition products formed under fire conditions. In case of fire the product releases hydrogen chloride.
Unusual fire & explosion hazards	Irritating or corrosive vapors may be emitted during a fire. Do NOT breathe fumes. Contain run-off. The product is oxidizing when dried.
Specific hazards	Promotes combustion of combustible products or materials.

5.3 Advice for firefighters

Special fire fighting procedures	If possible, fight fire from protected position. Ventilate closed spaces before entering them. Keep up-wind to avoid fumes. Containers close to fire should be removed immediately or cooled with water. Suppress (knock down) gasses/vapours/mists with a water spray.
Protective equipment for firefighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	Do not mix with other chemicals. Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of vapours and contact with skin and eyes. Provide adequate ventilation. In case of inadequate ventilation, use respiratory protection. Eliminate all sources of ignition.
For emergency responders	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. Follow safe handling advice and personal protective equipment recommendations for normal use of product. Do not touch spilled material.

6.2 Environmental precautions

Environmental precautions	Avoid discharge into drains, water courses or onto the ground.
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6.3 Methods and material for containment and cleaning up

Spill clean up methods	Ventilate and evacuate the area. Eliminate all ignition sources. Wear necessary protective equipment DO NOT touch spilled material! Stop leak if possible without risk. Use non-metallic tools/containers for clean up. Absorb spillage with inert, damp, non-combustible material or use a liquid binding material. Place waste material into suitable labelled sealed containers for disposal. Remove waste promptly to a safe area. Flush with plenty of water to clean spillage area.
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6.4 Reference to other sections

Reference to other sections	See section 1 for emergency contact. For personal protection, see section 8. For waste
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disposal, see section 13.

Section 7: Handling and storage

7.1 Precautions for safe handling

Handling

Use personal protective equipment, see Section 8. Avoid contact with skin and eyes. Do not handle broken packages without protective equipment. Ensure adequate ventilation. Do not use contact lenses. Keep away from flammable materials and incompatible substances. Use only equipment and materials which are compatible with the product. Do not confine the product in a circuit, between closed valves, or in a container without a vent. Always wash hands after handling.

7.2 Conditions for safe storage, including any incompatibilities

Storage precautions

Store in tightly closed original container in a dry, cool and well-ventilated place. Do not confine product in unvented vessels or between closed valves. Keep in a bunded area. Keep away from direct sunlight. Keep away from incompatible materials (see section 10).

Storage class

Corrosive storage

7.3 Specific end use(s)

Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

Usage description

Use only according to directions.

Section 8: Exposure controls/Personal protection

8.1 Control parameters

Ingredient comments

No exposure limits noted for ingredient(s).

8.2 Exposure Controls

Protective equipment



Engineering measures Respiratory equipment

Provide adequate ventilation, including appropriate local extraction. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Use respirators and components tested and approved under appropriate government standards such as CEN (EU). If the respirator is the sole means of protection, use a full-face supplied air respirator. Self-contained breathing apparatus (EN 133). Respirator with a vapour filter (EN 141). In case of decomposition (see section 10), face mask with combined type B-P2 cartridge.

Hand protection

Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374) is recommended. (EU Directive 89/686/EEC). Selection of the glove material depends on consideration of the penetration times, rates of diffusion and degradation, and concentration specific to the workplace. Gloves must be inspected prior to use. Suggested material: Nitrile. Minimum layer thickness: ≥ 0.35 mm. Break through time: 480 min. Suggested material: PVC. Minimum layer thickness: 0.5 mm. Break through time: 480 min. Suggested material: Butyl rubber. Minimum layer thickness: 0.5 mm. Break through time: 480 min. Gloves must be inspected prior to use. Consult manufacturer for specific advice on material. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product.

Eye protection

Wear safety goggles or face shield to prevent any possibility of eye contact. Use equipment for eye protection tested and approved under appropriate government standards such as EN 166(EU).

Other protection

Wear appropriate clothing to prevent any possibility of skin contact. The selected clothing must satisfy the European norm standard EN 943. Protective clothing should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Hygiene measures	DO NOT SMOKE IN WORK AREA! Wash hands after handling. Wash promptly if skin becomes wet or contaminated. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.
Process conditions	Keep container tightly sealed when not in use. Ensure that eye flushing systems and safety showers are located close by in the work place.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Yellow-green.
Odour	Chlorine Pungent.
Odour threshold - lower	No information available.
Odour threshold - upper	No information available.
pH-Value, Conc. Solution	>11 (15% solution).
pH-Value, Diluted solution	No information available.
Melting point	No information available.
Initial boiling point and boiling range	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability state	No information available.
Flammability limit - lower(%)	No information available.
Flammability limit - upper(%)	No information available.
Vapour pressure	No information available.
Vapour density (air=1)	No information available.
Relative density	1.25 at 20 °C (Chlorine;15%);1.3, at 21.2 °C (Chlorine; 24.3%).
Bulk density	No information available.
Solubility	Soluble in water
Decomposition temperature	No information available.
Partition coefficient; n-Octanol/Water	No information available.
Auto ignition temperature (°C)	No information available.
Viscosity	No information available.
Explosive properties	No information available.
Oxidising properties	No information available.

9.2 Other information

Molecular weight	No information available.
Volatile organic compound	No information available.
Other information	None noted.

Section 10: Stability and reactivity

10.1 Reactivity

Reactivity Corrosive to metals. Contact with acids liberates toxic gas.

10.2 Chemical stability

Stability Stable under normal temperature conditions and recommended use.

10.3 Possibility of hazardous reactions

Hazardous reactions Metals: Decomposition with formation of oxygen. Acids: Violent decomposition with release of chlorine.

Hazardous polymerisation Unknown.

Polymerisation description Not applicable.

10.4 Conditions to Avoid

Conditions to avoid Heat, sparks, open flames, temperature extremes and direct sunlight. To avoid thermal decomposition do not overheat. Avoid freezing.

10.5 Incompatible materials

Materials to avoid Metals, Salts of metals, Acids, Organic materials. Keep away from Nickel, Copper, Cobalt, Aluminium, Manganese.

10.6 Hazardous decomposition products

Hazardous decomposition products Chlorine, Sodium chlorate, Hypochlorous acid, predominant at acid pH, is 4 to 5 fold more toxic than hypochlorite ion. The release of other hazardous decomposition products is possible.

Section 11: Toxicological information

11.1 Information on toxicological effects

Toxicological information No toxicological information for the overall finished product.

Acute toxicity (Oral LD50) LD50, rat, > 1,100 mg/kg (Chlorine).

Acute toxicity (Dermal LD50) LD50, rabbit, > 20,000 mg/kg (Chlorine).

Acute toxicity (Inhalation LD50) LC50, 1 h, rat, > 10.5 mg/l (Chlorine).

Serious eye damage/irritation Causes serious eye damage.

Skin corrosion/irritation No information available.

Respiratory sensitisation Guinea pig, did not cause sensitization on laboratory animals.

Skin sensitisation Guinea pig, did not cause sensitization on laboratory animals.

Germ cell mutagenicity In vitro, ambiguous mutagenic effect. In vivo tests did not show mutagenic effects.

Carcinogenicity No information available.

Specific target organ toxicity - Single exposure:

STOT - Single exposure Human experience, Remarks: May cause respiratory irritation.

Specific target organ toxicity - Repeated exposure:

STOT - Repeated exposure No information available.

Inhalation Irritating to respiratory system. Symptoms: Breathing difficulties, cough, chemical pneumonitis, pulmonary oedema - Repeated or prolonged exposure: Nose bleeds, chronic bronchitis.

Ingestion Severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach. Risk of shock and respiratory disorder. Symptoms: Nausea, abdominal pain, bloody vomiting, diarrhoea, suffocation, cough, and severe shortness of breath. Risk of chemical pneumonitis from product inhalation.

Skin contact Corrosive! Can cause redness, pain, and severe skin burns. Symptoms: Redness, swelling of tissue, burns, ulceration.

Eye contact Corrosive! Vapours are irritating and may cause damage to the eyes. May cause irreversible

Waste management	eye damage. May cause blindness. Symptoms: Redness, lachrymation, swelling of tissue, burn. When handling waste, consideration should be made to the safety precautions applying to handling of the product. For wastewater containing product, do not discharge into ground or drain without treatment.
Routes of entry	No information available.
Target organs	Eyes, skin, digestive system, respiratory system.
Aspiration hazards:	No information available.
Reproductive toxicity:	Oral, rat, 5 mg/kg, Effects on fertility, NOAEL, (Chlorine). Oral, rat, 5.7 mg/kg, Developmental Toxicity, NOAEL, (Chlorine).

Name	LD50 oral	LD50 dermal	LD50 inhalation
SODIUM HYPOCHLORITE 5 - 16%	>1100.00mg/kg Rat	>20000.00mg/kg Rabbit	>10.50mg/l (vapours) Rat 1 Hours

Section 12: Ecological information

12.1 Toxicity

Acute toxicity - Fish	Fishes, various species, LC50, 96 h, 0.06mg/l, fresh water (active chlorine). Fishes, Menidia peninsulae, NOEC, 96 h, 0.04 mg/l, salt water (Chlorine). Fishes, various species, 96 h, 0.032 mg/l, Marine water (active chlorine).
Acute toxicity - Aquatic invertebrates	Crustaceans, various species, EC50, 48 h, 0.026 mg/l (Chlorine). Crustaceans, Daphnia magna, EC50, 48 h, 0.141 mg/l, fresh water (active chlorine).
Acute toxicity - Aquatic plants	No information available.
Acute toxicity - Microorganisms	No information available.
Chronic toxicity - Fish	No information available.
Chronic toxicity - Aquatic invertebrates	No information available.
Chronic toxicity - Aquatic plants	No information available.
Chronic toxicity - Microorganisms	No information available.
Ecotoxicity	The product contains substance which is very toxic to aquatic life.
Eco toxicological information	The product contains a substance which is harmful to aquatic organisms.

12.2 Persistence and degradability

Degradability	The methods for determining biodegradability are not applicable to inorganic substances.
Biological oxygen demand	No information available.
Chemical oxygen demand	No information available.

12.3 Bioaccumulative potential

Bioaccumulative potential	Does not bioaccumulate.
Bioaccumulation factor	No information available.
Partition coefficient; n-Octanol/Water	No information available.

12.4 Mobility in soil

Mobility	Mobile in water environment.
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12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment The product does not contain any PBT or vPvB Substances.

12.6 Other adverse effects

Other adverse effects	No information available.
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Name	Acute toxicity (Fish)	Acute toxicity (Aquatic invertebrates)	Acute toxicity (Aquatic plants)
SODIUM HYPOCHLORITE 5 - 16%	LC50 96 Hours 0.06ppm Freshwater Fish	EC50 48 Hours 0.14ppm Daphnia magna	

Section 13: Disposal considerations

Waste management When handling waste, consideration should be made to the safety precautions applying to handling of the product. For wastewater containing product, do not discharge into ground or drain without treatment.

13.1 Waste treatment methods

Disposal methods Dispose of waste and residues in accordance with local authority requirements, and in accordance with all local, national and international regulations. For waste disposal, use a licensed industrial waste disposal agent.

Section 14: Transport information**14.1 UN number**

UN no. (ADR) UN1791
UN no. (IMDG) UN1791
UN no. (IATA) UN1791

14.2 UN proper shipping name

ADR proper shipping name HYPOCHLORITE SOLUTION
IMDG proper shipping name HYPOCHLORITE SOLUTION
IATA proper shipping name HYPOCHLORITE SOLUTION

14.3 Transport hazard class(es)

ADR class 8
IMDG class 8
IATA class 8

Transport labels

**14.4 Packing group**

ADR/RID/ADN packing group II
IMDG packing group II
IATA packing group II

14.5 Environmental hazards

ADR Yes
IMDG Yes
IATA Yes

14.6 Special precautions for user

EMS F-A, S-B
Emergency action code A3 A803
Hazard no. (ADR) 80
Tunnel restriction code (E)

14.7 Transport in bulk according to annex II of MARPOL73/78 and the IBC code

Not applicable.

Section 15: Regulatory information**15.1 Safety, health and environmental regulations/Legislation specific for the substance or mixture**

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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments. The UN Globally Harmonized System (GHS) Safety Data Sheet format (Annex IV) is implemented as Annex II of REACH EU No 453/2010 of 20th

May 2010 amending regulation (EC) No 1907/2006.

Approved code of practice 2016 Code of Practice for the Chemical Agents Regulations in accordance with section 60 of the Safety, Health and Welfare at Work Act 2005 (No. 10 of 2005).

Chemical safety assessment No chemical safety assessment has been carried out.

Section 16: Other information

General information	This Safety Data Sheet is in accordance with Reach Regulation (EC) No 453/2010
Revision comments	This is first issue.
Revision date	1 st April 2020
Revision	1
Safety data sheet status	Approved.

Hazard statements in full

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
EUH031	Contact with acids liberates toxic gas.

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.