

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA
GHS

Printing date: 06.07.2016

Revision: 06.07.2016

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

1.1 Product identifier

Trade name: **Chlor-Brite v.1**

Article number: 100008

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

No further relevant information available.

Application of the substance / the mixture: Bleach

1.3 Details of the supplier of the Safety Data Sheet

Manufacturer/Supplier:

Theochem Laboratories
7373 Rowlett Park Drive
Tampa, FL 33610
Phone: 813-237-6463



1.4 Emergency telephone number:

ChemTel Inc.
(800)255-3924, +1 (813)248-0585

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Classifications listed are applicable to the OSHA GHS Hazard Communication Standard (29CFR1910.1200).

The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H400, H411.

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

STOT SE 3 H335 May cause respiratory irritation.

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the Globally Harmonized System within the United States.

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

Hazard pictograms

The following pictogram(s) are only for use within Europe: GHS09.



GHS05 GHS07 GHS09

Signal word Danger

Hazard-determining components of labelling:

sodium hypochlorite

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- **Hazard statements**

The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H400, H411.

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

- **Precautionary statements**

P260 Do not breathe mist/vapours/spray.

P264 Wash thoroughly after handling.

P280 Wear protective gloves / eye protection.

P271 Use only outdoors or in a well-ventilated area.

P303+P361+P353 IF ON SKIN (or hair): 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.

P310 Immediately call a POISON CENTER/doctor.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P363 Wash contaminated clothing before reuse.

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Additional information:**

EUH031 Contact with acids liberates toxic gas.

- **NFPA ratings (scale 0 - 4)**



Health = 3

Fire = 0

Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



Health = 3

Fire = 0

Reactivity = 0

- **2.3 Other hazards** There are no other hazards not otherwise classified that have been identified.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

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SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components:

CAS: 7681-52-9 EINECS: 231-668-3 Index number: 017-011-00-1	sodium hypochlorite  Met. Corr. 1, H290; Skin Corr. 1B, H314; Eye Dam. 1, H318  Aquatic Acute 1, H400; Aquatic Chronic 1, H410  STOT SE 3, H335	10-20%
CAS: 1310-73-2 EINECS: 215-185-5 Index number: 011-002-00-6	sodium hydroxide  Met. Corr. 1, H290; Skin Corr. 1A, H314; Eye Dam. 1, H318	≤ 2,5%

Additional information:

For the wording of the listed Hazard Statements refer to section 16.

For the listed ingredient(s), the identity and/or exact percentages are being withheld as a trade secret.

SECTION 4: First aid measures

4.1 Description of first aid measures

After inhalation:

Supply fresh air; consult doctor in case of complaints.

Provide oxygen treatment if affected person has difficulty breathing.

After skin contact:

Immediately remove any clothing soiled by the product.

Immediately rinse with water.

If skin irritation continues, consult a doctor.

Seek immediate medical help for blistering or open wounds.

After eye contact:

Remove contact lenses if worn, if possible.

Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed

Coughing

Cramp

Nausea

Breathing difficulty

Thirst

Hazards:

Danger of gastric perforation.

Danger of impaired breathing.

4.3 Indication of any immediate medical attention and special treatment needed

If necessary oxygen respiration treatment.

Later observation for pneumonia and pulmonary oedema.

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Medical supervision for at least 48 hours.

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SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
The product is not flammable.
Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** None.
- **5.2 Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
- **5.3 Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Use respiratory protective device against the effects of fumes/dust/aerosol.
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Particular danger of slipping on leaked/spilled product.
- **6.2 Environmental precautions**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Inform respective authorities in case of seepage into water course or sewage system.
- **6.3 Methods and material for containment and cleaning up**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Send for recovery or disposal in suitable receptacles.
- **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**
Prevent formation of aerosols.
Avoid splashes or spray in enclosed areas.
Use only in well ventilated areas.
- **Information about fire - and explosion protection:** No special measures required.

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· 7.2 Conditions for safe storage, including any incompatibilities

· Storage:

· Requirements to be met by storerooms and receptacles:

Avoid storage near extreme heat, ignition sources or open flame.

Store in a cool location.

Unsuitable material for receptacle: aluminium.

Unsuitable material for receptacle: steel.

Store only in the original receptacle.

· Information about storage in one common storage facility:

Do not store together with acids.

Store away from foodstuffs.

Store away from oxidising agents.

· Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

Keep container tightly sealed.

Store receptacle in a well ventilated area.

· 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace:

7681-52-9 sodium hypochlorite

WEEL (USA) Short-term value: 2 mg/m³

1310-73-2 sodium hydroxide

PEL (USA) Long-term value: 2 mg/m³

REL (USA) Ceiling limit: 2 mg/m³

TLV (USA) Ceiling limit: 2 mg/m³

· **DNELs:** No further relevant information available.

· **PNECs:** No further relevant information available.

· 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.

Do not inhale gases / fumes / aerosols.

· Respiratory protection:

Wear appropriate NIOSH respirator when ventilation is inadequate and occupational exposure limits are exceeded.

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· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Eye protection:**



Safety glasses

· **Body protection:** Protective work clothing

· **Limitation and supervision of exposure into the environment:**

No further relevant information available.

· **Risk management measures:** See Section 7 for additional information.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **Appearance**

Form:	Liquid
Colour:	Clear to straw color.
· Odour:	Chlorine-like
· Odour threshold:	Not determined.

· pH-value:	12,5 - 13,5
· Melting point/Melting range:	Not determined.
· Boiling point/Boiling range:	>100 °C (>212 °F)

· Flash point:	Not applicable.
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· Flammability (solid, gaseous):	Not applicable.
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· Auto/Self-ignition temperature:	Not determined.
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· Decomposition temperature:	Not determined.
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· Danger of explosion:	Product does not present an explosion hazard.
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· **Explosion limits**

Lower:	Not determined.
Upper:	Not determined.

· Vapour pressure:	Not determined.
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· Density:	1,1-1,2 g/cm ³ (9,18-10,014 lbs/gal)
· Relative density:	Not determined.
· Vapour density:	Not determined.
· Evaporation rate:	Not determined.

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- | | |
|---|--|
| · Solubility in / Miscibility with water: | Fully miscible. |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| · 9.2 Other information | No further relevant information available. |

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions**
Contact with acids releases toxic gases.
Reacts with many consumer products, releasing chlorine or chlorine oxide gas.
Toxic fumes may be released if heated above the decomposition point.
Corrosive action on metals.
Reacts with oxidising agents.
Reacts with strong alkali.
- **10.4 Conditions to avoid** Avoid acids.
- **10.5 Incompatible materials**
Warning! Do not use together with other products. May release dangerous gases (chlorine).
Contact with acids liberates toxic gas.
- **10.6 Hazardous decomposition products**
Hydrogen chloride (HCl)
Chlorine

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:

7681-52-9 sodium hypochlorite

Oral	LD50	5800 mg/kg (mouse)
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1310-73-2 sodium hydroxide

Oral	LD50	2000 mg/kg (rat)
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- **Primary irritant effect**
- **Skin corrosion/irritation:**
Causes severe skin burns and eye damage.

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- **Serious eye damage/irritation:**
Causes severe skin burns and eye damage.
- **Respiratory or skin sensitisation:** Based on available data, the classification criteria are not met.
- **Carcinogenic categories**
- **NTP (National Toxicology Program):**
None of the ingredients are listed.
- **OSHA-Ca (Occupational Safety & Health Administration):**
None of the ingredients are listed.
- **Probable routes of exposure:**
Ingestion.
Eye contact.
Skin contact.
- **Repeated dose toxicity:** No further relevant information available.
- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:**
May cause respiratory irritation.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** The product contains materials that are harmful to the environment.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** Does not accumulate in organisms.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxical effects:**
- **Remark:** After neutralisation a reduction of the harming action may be recognised.
- **Additional ecological information:**
- **General notes:**
Due to available data on eliminability/decomposition and bioaccumulation potential, a prolonged damage of the environment is unlikely.
Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. If the dilution of the use-level pH-value is considerably reduced, the aqueous waste, emptied into drains, is only low water-dangerous.
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Small amounts may be diluted with plenty of water and washed away. Dispose of larger amounts in accordance with Local Authority requirements.

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

The generation of waste should be avoided or minimized whenever possible. When practical, recycle in an environmentally acceptable, regulatory compliant manner. Dispose of non-recyclable products in accordance with all applicable Federal, State, Provincial, and Local requirements.

· Uncleaned packaging:

· **Recommendation:** Disposal must be made according to official regulations.

· **Recommended cleansing agents:** Water only.

SECTION 14: Transport information

· 14.1 UN-Number

· DOT, ADR, IMDG, IATA

UN1791

· 14.2 UN proper shipping name

· DOT

Hypochlorite solutions

· ADR

HYPOCHLORITE SOLUTION,
ENVIRONMENTALLY HAZARDOUS

· IMDG

HYPOCHLORITE SOLUTION, MARINE
POLLUTANT

· IATA

Hypochlorite solution

· 14.3 Transport hazard class(es)

· DOT



· Class

8 Corrosive substances.

· Label

8

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· **ADR**· **Class**

8 (C9) Corrosive substances.

· **Label**

8

· **IMDG**· **Class**

8 Corrosive substances.

· **Label**

8

· **IATA**· **Class**

8 Corrosive substances.

· **Label**

8

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

III

· **14.5 Environmental hazards:**

Product contains environmentally hazardous substances: sodium hypochlorite

· **Marine pollutant:**Yes
Symbol (fish and tree)· **14.6 Special precautions for user**

Warning: Corrosive substances.

· **Danger code (Kemler):**

80

· **EMS Number:**

F-A,S-B

· **Segregation groups**

Hypochlorites

· **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

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· **Transport/Additional information:**

· **DOT**



Limited Quantity for packages less than 30 kg and inner packagings less than 5 L.

Product is additionally classified as a MARINE POLLUTANT based on MARPOL and DOT rules. Labeling as a MARINE POLLUTANT is not required for non-bulk single package shipments by motor vehicle, rail car or aircraft. Bulk packaging consists of a maximum capacity of greater than 450L (119 gallons) for a liquid and a maximum net mass greater than 400kg (882 pounds) for a solid.

· **ADR**



Limited Quantity for packages less than 30 kg and inner packagings less than 5 L.

· **IMDG**



Limited Quantity for packages less than 30 kg and inner packagings less than 5 L.

· **IATA**



Limited Quantity for packages less than 30 kg and inner packagings less than 1 L.

SECTION 15: Regulatory information

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

· **United States (USA)**

· **SARA**

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

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- **Proposition 65 (California):**

- **Chemicals known to cause cancer:**

- None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for females:**

- None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for males:**

- None of the ingredients are listed.

- **Chemicals known to cause developmental toxicity:**

- None of the ingredients are listed.

- **Carcinogenic Categories**

- **EPA (Environmental Protection Agency)**

- None of the ingredients are listed.

- **IARC (International Agency for Research on Cancer)**

- None of the ingredients are listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

- None of the ingredients are listed.

- **Canadian Domestic Substances List (DSL)**

- All ingredients are listed.

- **National regulations:**

- **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

- **Other regulations, limitations and prohibitive regulations**

- **Substances of very high concern (SVHC) according to REACH, Article 57**

- None of the ingredients are listed.

- **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**

- 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.

- H410 Very toxic to aquatic life with long lasting effects.

- **Abbreviations and acronyms:**

- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

- IMDG: International Maritime Code for Dangerous Goods

- DOT: US Department of Transportation

- IATA: International Air Transport Association

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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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

LDLo: Lowest Lethal Dose Observed

Met. Corr. 1: Corrosive to metals – Category 1

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Corr. 1C: Skin corrosion/irritation – Category 1C

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

Sources

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

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