



Buckman's Sodium Hypochlorite Solution

Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 04/15/2015

Supersedes: 04/08/2013

Version: 3.0

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

1.1. Product identifier

Product name : Buckman's Sodium Hypochlorite Solution

Product form : Mixture

EPA Reg. No.: 42052-20001

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

Use of the substance/mixture : Cleaning Formulations, Bleaching, Non-pesticide Chemical Manufacturing and Swimming Pool Water Disinfection

1.3. Details of the supplier of the safety data sheet

Buckman's Inc.
105 Airport Road
Pottstown, PA 19464-3438
610-495-7495

1.4. Emergency telephone number

Emergency number : CHEMTREC: (800) 424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin Corr. 1A H314

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US)



GHS05

Signal word (GHS-US)

: **Danger**

Hazard statements (GHS-US)

: H314 - Causes severe skin burns and eye damage

Precautionary statements (GHS-US)

: P260 - Do not breathe vapours, mist, fume
P264 - Wash hands, forearms and face thoroughly after handling
P280 - Wear eye protection, protective gloves
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 doctor, a poison center
P321 - Specific treatment (see Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work on this label)
P363 - Wash contaminated clothing before reuse
P405 - Store locked up
P501 - Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%
Sodium hypochlorite	(CAS No) 7681-52-9	12.5 - 15
Sodium hydroxide	(CAS No) 1310-73-2	1 - 5

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SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.
- First-aid measures after inhalation : IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if breathing is affected. If breathing is difficult, supply oxygen.
- First-aid measures after skin contact : IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water for at least 15 minutes. Get medical attention immediately.
- First-aid measures after eye contact : IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. Get medical attention immediately. Continue rinsing.
- First-aid measures after ingestion : IF SWALLOWED: rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention if you feel unwell.

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

- Symptoms/injuries : Causes severe skin burns and eye damage.
- Symptoms/injuries after inhalation : May cause respiratory irritation.
- Symptoms/injuries after skin contact : Highly corrosive to skin.
- Symptoms/injuries after eye contact : Causes serious eye damage.
- Symptoms/injuries after ingestion : May cause gastrointestinal irritation.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Carbon dioxide. Foam. Dry powder. Sand. Water spray.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : May cause fire or explosion; strong oxidizer.
- Explosion hazard : Product is not explosive.
- Reactivity : Acid contamination will produce very irritating fumes similar to chlorine.

5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not dispose of fire-fighting water in the environment. Prevent human exposure to fire, fumes, smoke and products of combustion.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Evacuate area. Keep upwind. Ventilate area. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8).

6.1.1. For non-emergency personnel

- Protective equipment : Wear protective equipment as described in Section 8.
- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air respirator, in case of emergency.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Do not use sawdust or other combustible materials to absorb hypochlorite solutions. Dilute with plenty of water. Reduce with agents such as bisulfites or ferrous salt solutions. Wash spill area thoroughly with plenty of soap and water. Place in a polyethylene container for disposal in accordance with the waste regulations (see Section 13).

6.4. Reference to other sections

No additional information available

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Provide good ventilation in process area to prevent formation of vapor. Do not breathe vapors, mist. Avoid contact with skin, eyes and clothing. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in dry, well-ventilated area. Keep container closed when not in use. Stability decreases upon exposure to heat and light. Store in a dark area.

Incompatible materials : Heavy metals. Reducing agents. Organic material. Acids. Ether.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Sodium hydroxide (1310-73-2)	
ACGIH Ceiling (mg/m ³)	2
OSHA PEL (TWA) (mg/m ³)	2
OSHA PEL (Ceiling) (mg/m ³)	2

Sodium hypochlorite (7681-52-9)	
Remark (ACGIH)	OELs not established
Remark (OSHA)	OELs not established

8.2. Exposure controls

Appropriate engineering controls : Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment with flammable materials. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment : Gloves. Wear chemical goggles and face shield in combination. Protective clothing.



Hand protection : Use gloves chemically-resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl. Change contaminated gloves immediately. Suitable gloves for this specific application can be recommended by the glove supplier.

Eye protection : Wear eye protection, including chemical splash goggles and a face shield when possibility exists for eye contact due to spraying liquid or airborne particles. Chemical goggles and face shield must be worn in combination.

Skin and body protection : Wear long-sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure.

Respiratory protection : Use NIOSH-approved dust/particulate respirator. Where vapor, mist, or dust exceed PELs or other applicable OELs, use NIOSH-approved respiratory protective equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Color : Colorless. Light yellow-green.
Odor : Chlorine-like.
Odor Threshold : No data available
pH : 12 @ 100 g/L
Relative evaporation rate (butylacetate=1) : No data available
Melting point : No data available
Freezing point : -20 °C (-3 °F) Approximately
Boiling point : > 110 °C (230 °F) Decomposes
Flash point : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : No data available
Vapour pressure : 12.1 mm Hg @ 20 °C (68 °F)

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Relative vapour density at 20 °C	: No data available
Relative density	: 1.2
Solubility	: Water: 100 %
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Acid contamination will produce very irritating fumes similar to chlorine.

10.2. Chemical stability

Stability decreases with concentration, heat, light, decrease in pH and contamination by metals.

10.3. Possibility of hazardous reactions

Sodium hypochlorite and its solutions decompose when heated. Decomposition products may cause container to rupture.

10.4. Conditions to avoid

Heat. Direct sunlight.

10.5. Incompatible materials

Heavy metals. Reducing agents. Organic materials. Acids. Ether.

10.6. Hazardous decomposition products

Acid fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Sodium hydroxide (1310-73-2)	
LD50 dermal rabbit	1350 mg/kg
Sodium hypochlorite (7681-52-9)	
LD50 oral rat	8200 mg/kg
LD50 dermal rabbit	10000 mg/kg

Skin corrosion/irritation	: Causes severe skin burns. pH: 12 @ 100 g/L
Serious eye damage/irritation	: Causes serious eye damage. pH: 12 @ 100 g/L
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Symptoms/injuries after inhalation	: May cause respiratory irritation.
Symptoms/injuries after skin contact	: Highly corrosive to skin.
Symptoms/injuries after eye contact	: Causes serious eye damage.
Symptoms/injuries after ingestion	: May cause gastrointestinal irritation.

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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : No information available.

12.2. Persistence and degradability

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Persistence and degradability	No information available.
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12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Do not discharge to public wastewater systems without permit of pollution control authorities. No discharge to surface waters is allowed without an NPDES permit.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.

SECTION 14: Transport information

In accordance with DOT

Transport document description : UN1791 Hypochlorite Solutions, 8, III
UN-No.(DOT) : 1791
DOT NA no. : UN1791
Proper Shipping Name (DOT) : Hypochlorite Solutions
Department of Transportation (DOT) Hazard Classes : 8 - Class 8 - Corrosive material 49 CFR 173.136
Hazard labels (DOT) : 8 - Corrosive



Packing group (DOT) : III - Minor Danger
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 5 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 60 L
DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"

Additional information

Other information : No supplementary information available.

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

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All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
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Sodium hydroxide (1310-73-2)

CERCLA RQ (Reportable quantity, of EPA's List of Lists) : 1000 lb

Sodium hypochlorite (7681-52-9)

CERCLA RQ (Reportable quantity of EPA's List of Lists) : 100 lb

15.2. International regulations

No additional information available.

15.3. US State regulations

California Proposition 65

This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm.

Sodium hydroxide (1310-73-2)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

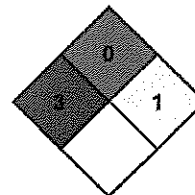
Sodium hypochlorite (7681-52-9)

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Massachusetts - Right To Know List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Indication of changes : Revision 3.0.
Revision date : 04/15/2015
Other information : Author: BCS.

NFPA health hazard : 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.
NFPA fire hazard : 0 - Materials that will not burn.
NFPA reactivity : 1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently.



HMIS III Rating

Health : 3
Flammability : 0
Physical : 1
Personal Protection :

The information contained herein is offered only as a guide to the handling of this specific material and has been prepared in good faith by technically knowledgeable personnel. It is not intended to be all-inclusive and the manner and conditions of use and handling may involve other and additional considerations. No warranty of any kind is given or implied and Manufacturer or Seller will not be liable for any damages, losses, injuries or consequential damages that may result from the use of or reliance on any information contained herein.