

BLEACH

SECTION 1. IDENTIFICATION

Product Identifier	BLEACH
Other Means of Identification	Sodium Hypochlorite 12%
Product Family	Bacteriacide / Biocide
Recommended Use	Drilling Fluid Additive.
Supplier Identifier	Bri-Chem Supply Ltd., Bay 4, 5510 - 3rd Street SE, Calgary, Alberta, T2H 1J9, Bri-Chem Supply, 403-252-5904, www.brichemsupply.com
Emergency Phone No.	ChemTrec, (800) 424-9300, 24/7

SECTION 2. HAZARD IDENTIFICATION

Classification

Corrosive to metals - Category 1; Skin corrosion - Category 1B; Serious eye damage - Category 1; Aspiration hazard - Category 1

Label Elements



Signal Word:

DANGER!

Hazard Statement(s):

May be corrosive to metals.

May be fatal if swallowed and enters airways.

Causes severe skin burns and eye damage.

Causes serious eye damage.

Precautionary Statement(s):

Prevention:

Keep only in original packaging.

Do not breathe dusts or mists.

Wash hands and skin thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.

Response:

IF SWALLOWED: Immediately call a POISON CENTRE or doctor.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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

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

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Immediately call a POISON CENTRE or doctor.

Wash contaminated clothing before reuse.

Absorb spillage to prevent material damage.

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Storage:
Store locked up.
Store in corrosive resistant container with a resistant inner liner.

Disposal:
Dispose of contents and container in accordance with local, regional, national and international regulations.

Other Hazards

Water will cause product to be EXTREMELY slippery.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Water	7732-18-5	60-100		
Sodium hypochlorite, solution	7681-52-9	10-30		

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Can release corrosive chlorine gas. Take proper precautions to ensure your own safety before attempting rescue; (e.g. wear appropriate protective equipment, use the "buddy" system). Remove source of exposure or move person to fresh air and keep comfortable for breathing. Immediately call a Poison Centre or doctor. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by a Poison Centre or doctor. Symptoms of pulmonary edema can be delayed up to 48 hours after exposure.

Skin Contact

Avoid direct contact. Wear chemical protective clothing, if necessary. Take off immediately all contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash with plenty of lukewarm water, gently flowing water for 15-20 minutes. Immediately call a Poison Centre or doctor. Wash contaminated clothing before re-use or discard.

Eye Contact

Avoid direct contact. Rinse eyes cautiously with lukewarm water, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for a total of 15-20 minutes. Take care not to rinse contaminated water into the unaffected eye or onto face. Immediately call a Poison Centre or a doctor.

Ingestion

Rinse mouth. Immediately call a Poison Centre or doctor. DO NOT induce vomiting. If vomiting occurs naturally, lie on your side in the recovery position.

First-aid Comments

Get medical advice or attention if you feel unwell or are concerned. Provide general supportive measures (comfort, warmth, rest).

Consult a doctor and/or the nearest Poison Centre for all serious exposures.

Some first aid procedures recommended above require advanced first aid training.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Dry chemical, carbon dioxide, foam, water.

Specific Hazards Arising from the Product

Non-combustible.

Chlorine gas and hydrogen gas.

Special Protective Equipment and Precautions for Fire-fighters

Must wear chemical protective clothing (e.g. chemical splash suit) and NIOSH-approved positive pressure SCBA when

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handling this product.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions

It is good practice to prevent releases into the environment. Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up

Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.

Large spills or leaks: stop or reduce leak if safe to do so. Dike spilled product to prevent water pollution. Water will cause product to be EXTREMELY slippery. Return recovered material to plant.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Avoid ingestion. Avoid skin and eye contact. Practice reasonable caution and personal cleanliness.

It is good practice to: avoid breathing product; avoid skin and eye contact and wash hands after handling.

Conditions for Safe Storage

Store in a cool, dry, well-ventilated place. Keep container tightly closed and away from incompatible materials.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ACGIH® = American Conference of Governmental Industrial Hygienists. TLV® = Threshold Limit Value. TWA = Time-Weighted Average. 2 mg/m³

OSHA = US Occupational Safety and Health Administration. PEL = Permissible Exposure Limits. TWA = Time-Weighted Average.

TLV® = Threshold Limit Value. +1 ppm.

Appropriate Engineering Controls

Provide mechanical ventilation to minimize vapour concentrations and to reduce potential for exposure.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

Skin Protection

Prevent skin contact. Wear chemical protective clothing e.g. gloves, aprons, boots.

Respiratory Protection

Use a NIOSH-approved air-purifying respirator with an organic vapour cartridge.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Clear green - yellow liquid.
Odour	Chlorine
Odour Threshold	Not available
pH	11.5 - 13.0
Melting Point/Freezing Point	-25 °C (freezing)
Initial Boiling Point/Range	40 °C
Evaporation Rate	Not applicable
Vapour Pressure	17.5 mm Hg at 20 °C
Vapour Density (air = 1)	Not available

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Relative Density (water = 1)	1.17
Solubility	Soluble in water; Not available (in other liquids)
Other Information	
Physical State	Liquid
Molecular Formula	Not applicable
Molecular Weight	Not applicable
Surface Tension	Not applicable
Critical Temperature	Not applicable
Vapour Pressure at 50 deg C	Not applicable
Saturated Vapour Concentration	Not applicable

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability

Unstable under certain conditions - see Conditions to Avoid.

Conditions to Avoid

Unstable at temperatures above 40°C, in sunlight and in contact with acid.

Incompatible Materials

Strong acids, ammonia, oxidizable materials, nickel, copper, tin, manganese and iron.

Hazardous Decomposition Products

When heated to decomposition, it emits acrid smoke and irritating fumes. Chlorine. Oxides of sodium. Oxygen.

SECTION 11. TOXICOLOGICAL INFORMATION

Severe general irritancy of product. If overexposed to the solution, there will be constant irritation to the eyes, skin and throat.

Acute Toxicity

LD50 Oral Rat: 8200 mg/kg

LD50 Dermal Rabbit: >10000 mg/kg

Skin Corrosion/Irritation

Causes severe irritation with blistering and ulceration.

Serious Eye Damage/Irritation

Causes severe irritation of the mucous membranes of the eyes. May cause severe eye damage.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

Causes severe irritation to the nose and throat causing coughing, difficulty breathing and pulmonary edema.

Ingestion

Burning in the mouth and throat, abdominal cramps, nausea, vomiting diarrhea and shock. May lead to convulsions, coma and death.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

If overexposed to the solution, there will be constant irritation to the eyes, nose and throat.

Carcinogenicity

Not Applicable

No information was located for: Respiratory and/or Skin Sensitization, Development of Offspring, Sexual Function and Fertility, Germ Cell Mutagenicity, Interactive Effects

SECTION 12. ECOLOGICAL INFORMATION

Harmful to aquatic life at low concentrations. Toxicity is primarily associated with pH.

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Ecotoxicity

Fish Species Data

LC50 Oncorhynchus mykiss: 0.03 - 0.19 mg/L 96 h semi-static
LC50 Oncorhynchus mykiss: 0.05 - 0.771 mg/L 96 h flow-through
LC50 Pimephales promelas: 0.06 - 0.11 mg/L 96 h flow-through
LC50 Oncorhynchus mykiss: 0.18 - 0.22 mg/L 96 h static
LC50 Lepomis macrochirus: 0.28 - 1 mg/L 96 h flow-through
LC50 Lepomis macrochirus: 0.4 - 0.8 mg/L 96 h static
LC50 Pimephales promelas: 4.5 - 7.6 mg/L 96 h static
Freshwater Algae Data
EC50 Skeletonema costatum: 0.095 mg/L 24 h

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of in accordance with federal, provincial and local government regulations. Containers should NOT be re-used. Containers should be disposed of in accordance with government guidelines.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	1791	Hypochlorite Solution with more than 7% available chlorine	8	II

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

WHMIS 1988 Classification



Class C



Class D2B



Class E



Class F

C - Oxidizer; D2B - Toxic (Skin irritant; Eye irritant); E - Corrosive; F - Dangerously Reactive

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by the Controlled Products Regulations.

SECTION 16. OTHER INFORMATION

NFPA Rating Health - 3 Flammability - 0 Instability - 1

SDS Prepared By Bri-Chem Supply Ltd

Phone No. (403) 252-5904

Date of Preparation December 29, 2020

Date of Last Revision December 29, 2020

Disclaimer This Health and Safety information is correct to the best of our knowledge and belief at the date of its publication, but we cannot accept liability for any loss, injury or damage which may result from its use. We shall ensure, so far as is reasonably practicable, that any revision of this

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Data Sheet is sent to all customers to whom we have directly supplied this substance, but must point out that it is the responsibility of any intermediate supplier to ensure that such revision is passed to the ultimate user. The information given in the Data Sheet is designed only as guidance for safe handling, storage, and the use of the substance. It is not a specification nor does it guarantee any specific properties. All chemicals should be handled only by competent personnel, within a controlled environment. Should further information be required, this can be obtained through the sales office whose address is at the top of this data sheet.

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