



Borchlor 5

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## SAFETY DATA SHEET

### SECTION 1. IDENTIFICATION

**Product identifier used on the label**

: **Borchlor 5**

**Product Code(s)** : Borchlor 5, .12.5% by wt. Sodium Hypochlorite Solution, Industrial Strength Bleach

**Recommended use of the chemical and restrictions on use**

: Reagent; Chemical intermediate.

**Chemical family**

: Mixture of inorganic sodium compounds.

**Name, address, and telephone number of the supplier:**

**Borden & Remington Corp**

63 Water St.  
PO Box 2573  
Fall River, MA, USA  
02722

Supplier's Telephone # : (508) 675-0096

**24 Hr. Emergency Tel #** : Chemtrec 1-800-424-9300 (Within Continental U.S.); Chemtrec 703-527-3887 (Outside U.S.).

**Name, address, and telephone number of the manufacturer:**

Refer to supplier

### SECTION 2. HAZARDS IDENTIFICATION

**Classification of the chemical**

Greenish-yellow liquid. Chlorine or bleach odor.

**Most important hazards:**

OSHA: This material is classified as hazardous under OSHA regulations (29CFR 1910.1200) (Hazcom 2012). Hazardous classification:

- Corrosive to metals - Category 1
- Skin corrosion - Category 1
- Serious eye damage - Category 1
- STOT - single exposure - Category 3

WHMIS information: This product is a WHMIS Controlled Product. It meets one or more of the criteria for a controlled product provided in Part IV of the Canadian Controlled Products Regulations (CPR). WHMIS classification:

Class E (Corrosive Material)

**Label elements**

The following label information is applicable only to the United States according to OSHA Regulations (29 CFR 1910.1200) (Hazcom 2012):

**Signal Word**

DANGER!

**Hazard statement(s)**

- May be corrosive to metals.
- Causes severe skin burns and eye damage.
- May cause respiratory irritation.

**Precautionary statement(s)**



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Keep only in original container.  
Wash hands and face thoroughly after handling.  
Do not breathe mist/vapors/spray.  
Wear protective gloves/clothing and eye/face protection.  
Use only outdoors or in a well-ventilated area.

Absorb spillage to prevent material damage.  
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
Immediately call a POISON CENTER or doctor/physician.  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
Immediately call a POISON CENTER or doctor/physician.  
Wash contaminated clothing before reuse.  
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 CENTER or doctor/physician.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

Store in a well-ventilated place. Keep container tightly closed.  
Store locked up.  
Store in corrosive resistant container with a resistant inner liner.

Dispose of contents/container in accordance with local regulation.

Hazard pictograms

The following label information is applicable only to Canada according to the Canadian Controlled Products Regulations (CPR/WHMIS):

**DANGER!** Corrosive liquid. May be corrosive to metals. Causes skin and eye burns. May be harmful or fatal if inhaled. Causes respiratory tract irritation. May be harmful or fatal if swallowed. Ingestion may cause severe burns to the mucous membranes of the digestive tract.

**PRECAUTIONS:** Keep only in original container. Use only outdoors or in a well-ventilated area. Wear chemically resistant protective equipment during handling. Do not breathe fumes, mists or vapours. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid contact with incompatible materials. Wash thoroughly after handling. Keep containers tightly closed when not in use. Store in a cool, dry, well ventilated area. Store in corrosive resistant container with a resistant inner liner.

**FIRST AID:** For all cases, obtain medical attention immediately. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Flush skin thoroughly with running water for at least 15 to 20 minutes. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Flush eyes with large amounts of running water for at least 30 minutes.

Refer To Material Safety Data Sheet for further information.

Hazard pictograms:





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### Other hazards

Other hazards which do not result in classification Burning produces obnoxious and toxic fumes. Ingestion may cause severe burns to the mucous membranes of the digestive tract. Prolonged skin contact may cause dermatitis (rash), characterized by red, dry, itching skin.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Chemical name</u>	<u>CAS #</u>	<u>Concentration</u>
sodium hypochlorite	7681-52-9	5.0 - 15.0
sodium hydroxide	1310-73-2	0.30

### SECTION 4. FIRST-AID MEASURES

#### Description of first aid measures

- Ingestion* : Do NOT induce vomiting. Have victim rinse mouth with water, then give one to two glasses of water to drink. Never give anything by mouth to an unconscious person. Seek immediate medical attention/advice.
- Inhalation* : Immediately remove person to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. Seek immediate medical attention/advice.
- Skin contact* : Take off all contaminated clothing immediately. Flush affected skin with gently flowing lukewarm water for at least 30 minutes. Do not rub area of contact. Seek immediate medical attention/advice. Wash contaminated clothing before re-use. Leather and shoes that have been contaminated with the solution may need to be destroyed.
- Eye contact* : Immediate medical attention is required. Immediately flush eyes thoroughly with running water for at least 20 to 30 minutes. Delays greater than 5 seconds may cause permanent eye damage. Continue rinsing eyes during transport to hospital. Seek immediate medical attention/advice.

#### Most important symptoms and effects, both acute and delayed

- : Harmful if swallowed.  
: Harmful if inhaled.  
: Corrosive to all tissues.

#### Indication of any immediate medical attention and special treatment needed

- : Corrosive liquid. Treat symptomatically.

### SECTION 5. FIRE-FIGHTING MEASURES

#### Extinguishing media

##### *Suitable extinguishing media*

- : Use media suitable to the surrounding fire such as water fog or fine spray, alcohol foams, carbon dioxide and dry chemical.

##### *Unsuitable extinguishing media*

- : Do not use water jet, as this may spread burning material.

#### Special hazards arising from the substance or mixture / Conditions of flammability

- : Not flammable under normal conditions of use. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure.

#### Flammability classification (OSHA 29 CFR 1910.106)

- : Non-flammable.

#### Explosion Data: Sensitivity to Mechanical Impact / Static Discharge:

- : Not expected to be sensitive to mechanical impact or static discharge.

#### Hazardous combustion products

- : Chlorine; Carbon oxides; irritating fumes and smoke.

#### Special protective equipment and precautions for firefighters



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### Protective equipment for fire-fighters

- : Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. A full-body chemical resistant suit should be worn.

### Special fire-fighting procedures

- : Move containers from fire area if safe to do so. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

- : Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. Individuals involved in the cleanup must wear alkali resistant personal protective equipment. For personal protection see section 8.

### Environmental precautions

- : Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. For large spills, dike the area to prevent spreading.

### Methods and material for containment and cleaning up

- : Ventilate area of release. Eliminate all ignition sources if safe to do so. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13). Notify the appropriate authorities as required.

### Special spill response procedures

- : If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8802).  
US CERCLA Reportable quantity (RQ): See section 15.

## SECTION 7. HANDLING AND STORAGE

### Precautions for safe handling

- : Use only in well-ventilated areas. Wear chemically resistant protective equipment during handling. Avoid breathing vapour or mist. Avoid contact with skin, eyes and clothing. Keep away from heat, sparks, and open flames. Keep away from metals and incompatibles. Label containers appropriately. Keep containers tightly closed when not in use. Wash thoroughly after handling.

### Conditions for safe storage

- : Store in a cool, dry, well ventilated area, away from heat and ignition sources. Store away from incompatible materials. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. Store in corrosion-resistant containers.

### Incompatible materials

- : Acids; Metals (e.g. tin, aluminum, zinc and alloys containing these metals); Oxidizing agents; Organic materials.

## SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Limits:

Chemical Name	ACGIH TLV		OSHA PEL	
	TWA	STEL	PEL	STEL
sodium hypochlorite	N/Av	N/Av	N/Av	N/Av
sodium hydroxide	2 mg/m <sup>3</sup> (Ceiling)	N/Av	2 mg/m <sup>3</sup>	N/Av

### Exposure controls

Ventilation and engineering measures



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- Respiratory protection** : Provide exhaust ventilation or other engineering controls to keep the airborne concentration of vapours below their respective threshold limit value.  
: Respiratory protection is required if the concentrations exceed the TLV. If respiratory protection is warranted, wear NIOSH-approved respirators. Advice should be sought from respiratory protection specialists.
- Skin protection** : Impervious gloves must be worn when using this product. The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Eye / face protection** : Chemical splash goggles must be worn when handling this material. A full face shield may also be necessary.
- Other protective equipment** : Wear chemically protective gloves (impervious), boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. An eyewash station and safety shower should be made available in the immediate working area. Other equipment may be required depending on workplace standards.
- General hygiene considerations** : Avoid breathing vapour or mist. Avoid contact with skin, eyes and clothing. Do not eat, drink, smoke or use cosmetics while working with this product. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance** : Greenish-yellow liquid.  
**Odour** : Chlorine or bleach odor.  
**Odour threshold** : N/Av  
**pH** : 12.5  
**Melting/Freezing point** : N/Av  
**Initial boiling point and boiling range** : 104°C (220°F)  
**Flash point** : N/Av  
**Flashpoint (Method)** : N/Av  
**Evaporation rate (BuAe = 1)** : N/Av  
**Flammability (solid, gas)** : N/Av  
**Lower flammable limit (% by vol.)** : N/Av  
**Upper flammable limit (% by vol.)** : N/Av  
**Oxidizing properties** : None known.  
**Explosive properties** : Not explosive  
**Vapour pressure** : N/Av  
**Vapour density** : N/Av  
**Relative density / Specific gravity** : 1.20  
**Solubility in water** : soluble  
**Other solubility(ies)** : N/Av  
**Partition coefficient: n-octanol/water or Coefficient of water/oil distribution** : N/Av  
**Auto-ignition temperature** : N/Av  
**Decomposition temperature** : N/Av  
**Viscosity** : N/Av  
**Volatiles (% by weight)** : N/Av  
**Volatile organic Compounds (VOC's)** : N/Av



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### Absolute pressure of container

: N/Ap

### Flame projection length

: N/Ap

### Other physical/chemical comments

: No additional information.

## SECTION 10. STABILITY AND REACTIVITY

**Reactivity** : Not normally reactive.

**Chemical stability** : Stable under the recommended storage and handling conditions prescribed. Solutions slowly decompose with air to form chlorine gas.

### Possibility of hazardous reactions

: Hazardous polymerization will not occur.

### Conditions to avoid

: Avoid heat and open flame. Avoid contact with incompatible materials. Metals (e.g. tin, aluminum, zinc and alloys containing these metals).

### Incompatible materials

: Acids; Metals (e.g. tin, aluminum, zinc and alloys containing these metals); Oxidizing agents; Organic materials.

### Hazardous decomposition products

: Solutions slowly decompose with air to form chlorine gas. Refer also to hazardous combustion products, Section 5.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure:

**Routes of entry inhalation** : YES

**Routes of entry skin & eye** : YES

**Routes of entry Ingestion** : YES

### Routes of exposure skin absorption

: NO

### Potential Health Effects:

#### Signs and symptoms of short-term (acute) exposure

##### *Sign and symptoms Inhalation*

: May cause severe irritation to the nose, throat and respiratory tract. Symptoms may include coughing, choking and wheezing. Very high concentrations may cause unconsciousness and death.

##### *Sign and symptoms ingestion*

: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach. Symptoms may include abdominal pain, vomiting, burns, perforations, bleeding and eventually death.

##### *Sign and symptoms skin*

: Direct skin contact may cause corrosive skin burns, deep ulcerations and possibly permanent scarring.

##### *Sign and symptoms eyes*

: Severe irritation, burns and possibly permanent eye damage may result from direct contact.

#### Potential Chronic Health Effects

: Chronic skin contact with low concentrations may cause dermatitis.

#### Mutagenicity

: Not expected to be mutagenic in humans.

#### Carcinogenicity

: No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

#### Reproductive effects & Teratogenicity

: Not expected to have other reproductive effects.

#### Senitization to material

: Not expected to be a skin or respiratory sensitizer.



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**Specific target organ effects** : This material is classified as hazardous under OSHA regulations (29CFR 1910.1200) (Hazcom 2012). Classification: Specific target organ toxicity - single exposure. May cause respiratory irritation.

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**Irritancy** : Corrosive

**Medical conditions aggravated by overexposure**

: Pre-existing skin, eye and respiratory disorders.

**Synergistic materials**

: No information available.

**Toxicological data**

: Contains no ingredients that are considered to have acute toxicity hazards.

See below for individual ingredient acute toxicity data.

<u>Chemical name</u>	<u>LC<sub>50</sub>(4hr)</u>	<u>LD<sub>50</sub></u>	
	<u>inh, rat</u>	<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
sodium hypochlorite	>5250 mg/m <sup>3</sup> (>5.25 mg/L)	8800 mg/kg (12.5%); 5800 mg/kg (mouse)	>20 g/kg (12.5%)
sodium hydroxide	N/Av	N/Av	N/Av

**Other important toxicological hazards**

: None known or reported by the manufacturer.

### SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity** : No data is available on the product itself. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters. See the following tables for individual ingredient ecotoxicity data.

**Ecotoxicity data:**

<u>Ingredients</u>	<u>CAS No</u>	<u>Toxicity to Fish</u>		
		<u>LC50 / 96h</u>	<u>NOEC / 21 day</u>	<u>M Factor</u>
sodium hypochlorite	7681-52-9	0.059 mg/L (Rainbow trout)	0.04 mg/L (Tidewater silverside)	10
sodium hydroxide	1310-73-2	N/Av	N/Av	None.

<u>Ingredients</u>	<u>CAS No</u>	<u>Toxicity to Daphnia</u>		<u>M Factor</u>
		<u>EC50 / 48h</u>	<u>NOEC / 21 day</u>	
sodium hypochlorite	7681-52-9	0.032 mg/L (Water flea)	0.02 mg/L (NOEC) (Mysid shrimp)	10
sodium hydroxide	1310-73-2	40 mg/L (Water flea)	N/Av	None.




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<u>Ingredients</u>	CAS No	Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
sodium hypochlorite	7681-52-9	46 mg/L/96hr (Red algae)	N/Av	None.
sodium hydroxide	1310-73-2	N/Av	N/Av	None.

**Persistence and degradability**

: No data is available on the product itself.

**Bioaccumulation potential**

: No data is available on the product itself.

**Mobility in soil**

: No data is available on the product itself.

**Other Adverse Environmental effects**

: No data is available on the product itself.

### SECTION 13. DISPOSAL CONSIDERATIONS

**Handling for Disposal**

: See Section 7 (Handling and Storage) for further details. Empty containers retain residue (liquid and/or vapour) and can be dangerous.

**Methods of Disposal**

: Dispose of in accordance with federal, provincial and local hazardous waste laws.

**RCRA**

: If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

### SECTION 14. TRANSPORTATION INFORMATION

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
49CFR/DOT	UN1791	HYPOCHLORITE SOLUTION	8	III	

**49CFR/DOT Additional information**

This material may be shipped as a limited quantity according to 49CFR section 173.154.

**TDG**

UN1791 HYPOCHLORITE SOLUTION

8

III

**TDG Additional information**

Within Canada, the Limited Quantity Exemption may apply for containers which hold specific quantities of the product. Under the TDGR, refer to section 1.17 for Limited Quantity Exemption information, if shipping under this exemption.

**Special precautions for user**

: Appropriate advice on safety must accompany the package.

**Environmental hazards**

: This mixture meets the criteria for an environmentally hazardous material according to the IMDG Code. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

: This information is not available.

### SECTION 15 - REGULATORY INFORMATION

**US Federal Information:**

Components listed below are present on the following U.S. Federal chemical lists:







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**Legend**

- : ACGIH: American Conference of Governmental Industrial Hygienists
- CAS: Chemical Abstract Services
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
- CFR: Code of Federal Regulations
- DOT: Department of Transportation
- EPA: Environmental Protection Agency
- HSDB: Hazardous Substances Data Bank
- IARC: International Agency for Research on Cancer
- Inh: Inhalation
- LC: Lethal Concentration
- LD: Lethal Dose
- N/Ap: Not Applicable
- N/Av: Not Available
- NIOSH: National Institute of Occupational Safety and Health
- NTP: National Toxicology Program
- OSHA: Occupational Safety and Health Administration
- PEL: Permissible exposure limit
- RCRA: Resource Conservation and Recovery Act
- RTECS: Registry of Toxic Effects of Chemical Substances
- SARA: Superfund Amendments and Reauthorization Act
- STEL: Short Term Exposure Limit
- TDG: Canadian Transportation of Dangerous Goods Act & Regulations
- TLV: Threshold Limit Values
- TPQ: Threshold Planning Quantity
- TSCA: Toxic Substance Control Act
- TWA: Time Weighted Average
- WHMIS: Workplace Hazardous Materials Identification System

**References**

- : 1. ACGIH, Threshold Limit Values and Biological Exposure Indices for 2013.
- 2. International Agency for Research on Cancer Monographs, searched 2013.
- 3. Canadian Centre for Occupational Health and Safety, CCIInfoWeb databases (Chempendium, HSDB and RTECs). (2013)
- 4. Material Safety Data Sheet from manufacturer.
- 5. US EPA Title III List of Lists (October 2012)
- 6. California Proposition 65 List (26 July 2013)

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**Other special considerations for handling**

: Provide adequate information, instruction and training for operators.

**Prepared for:**

Borden & Remington Corp  
63 Water Street  
PO Box 2573  
Fall River, MA, USA 02722  
(508) 675-0096  
Direct all enquiries to: Borden & Remington Corp

**Prepared by:**

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### DISCLAIMER

This Safety Data Sheet was prepared by ICC The Compliance Center Inc. using information provided by Borden & Remington Corp and CCOHS' Web Information Service. The information in the Safety Data Sheet is offered for your consideration and guidance when exposed to this product. ICC The Compliance Center Inc and Borden & Remington

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## **SAFETY DATA SHEET**

Corp expressly disclaim all expressed or implied warranties and assume no responsibilities for the accuracy or completeness of the data contained herein. The data in this SDS does not apply to use with any other product or in any other process.

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