

# **LAVO-12 BLEACH**

## **SODIUM HYPOCHLORITE SOLUTION – 12%**

**(W.H.M.I.S.: CLASS E, D<sub>2</sub>B)**

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### **MATERIAL SAFETY DATA SHEET**

Date issued: March 2004

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**EMERGENCY TELEPHONE NUMBERS:** (514) 526-7783

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### **PRODUCT IDENTIFICATION:**

Product Name:	<b>LAVO-12</b>
Chemical Name:	Sodium Hypochlorite 12%
Synonyms:	Bleach; Javel Water
Chemical Family:	Chlorite
Molecular Formula:	NaOCl
Product Use:	Water Purification, Bleaching Agent and Disinfectant

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### **HAZARDOUS INGREDIENTS OF MATERIAL:**

Hazardous Ingredients	% (W/V)	ACGIH TWA	CAS No.
Sodium Hypochlorite	12 - 14 0,5 ppm		7681-52-9

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### **PHYSICAL PROPERTIES:**

Appearance and Odour:	Clear, greenish-yellow aqueous solution with a strong chlorine odour.
Boiling Point:	Slowly decomposes at 40° C to NaCl and NaClO <sub>3</sub>
Melting/Freezing Point:	- 25° C (- 12° F) for a 12 % solution.
Vapour Pressure:	17,5 mmHg at 20° C
Specific gravity:	≈ 1,165 g/mL
Vapour Density:	No data
Evaporation Rate:	No data
Solubility:	Miscible in all proportion in water
% Volatile by Volume:	No data

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pH:	11,5 - 13,0
Coefficient of water/oil distribution:	No data
Sensitivity to Mechanical Impact:	No data
Rate of Burning:	No data
Explosive Power:	No data
Sensitivity to Static Discharge:	No data

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## REACTIVITY DATA:

Stability:	
Under Normal Conditions:	Unstable above 40° C, when exposed to sunlight or in contact with metals.
Under Fire Conditions:	Unstable
Hazardous Polymerization:	Will not occur
Conditions to Avoid:	Temperatures above 40°C
Materials to Avoid:	Acids, ammonia, oxidizable materials, urea, nickel, copper, manganese, iron, most metals.
Hazardous Decomposition or Combustion Products:	Chlorine gas when in contact with acids; oxygen when in contact with metals

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## SHIPPING DESCRIPTION (Under the TDG Act)

Shipping Name:	Hypochlorite Solution
Shipping Class/Division:	Corrosive Class 8 (9.2)
Product Identification No (PIN):	UN 1791
Packing Group:	III

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## FIRE AND EXPLOSION DATA

Flash Point (method):	Non-flammable
Autoignition Temperature:	Not applicable
Flammability Limits in air (%):	UEL: Not applicable LEL: Not applicable

Fire Extinguishing Media: Use appropriate media to extinguish surrounding fire.  
Fire Fighting Procedures: Full protection equipment, including a self-contained breathing apparatus, should be worn. Remove storage vessels from fire zone if possible. Use water spray to cool containers to avoid pressure build-up.

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## TOXICOLOGICAL AND HEALTH DATA

Recommended Exposure Limit: ACGIH TLV : 0,5 ppm (as Chlorine)

### Toxicological Data:

Sodium Hypochlorite:	LD 50 (oral, rat) = 8910 mg/Kg
	LC 50 (inhalation, rat) > 10,500 mg/m <sup>3</sup> /H
Carcinogenicity Data:	The ingredients of this product are not listed as carcinogens.
Reproductive Effects:	No information is available.
Teratogenicity Data:	No information is available.
Synergistic Materials:	None known.
<b>Effect of exposure when:</b>	
Inhaled:	<b>Corrosive!</b> May cause irritation of the nose and upper respiratory tract, headache and coughing.
In contact with the skin:	<b>Corrosive!</b> Can cause severe local irritation, burns and blisters. Prolonged or repeated contact with diluted solutions may bleach skin or cause dermatitis.
In contact with the eyes:	<b>Very Corrosive!</b> Can cause irritation and severe damages resulting in blindness.
Ingested:	<b>Corrosive!</b> Burning in mouth and throat. Severe pain, vomiting, diarrhea.

### **FIRST AID PROCEDURES WHEN:      WARNING CORROSIVE!**

Inhalation:	Move victim to fresh air. Give artificial respiration <b>ONLY</b> if breathing has stopped. Obtain medical attention immediately.
Skin contact:	Remove contaminated clothing. Flush affected area with water for at least <b>20 minutes</b> . Obtain medical attention.
Eye contact:	Flush immediately eyes with running water for at least <b>30 minutes</b> holding eyelids open. <b>Obtain medical attention immediately.</b>
Ingestion:	If victim is alert and not convulsing, rinse out mouth and give 1/2 to 1 glass of water to dilute material. <b>DO NOT</b> induce vomiting. <b>Obtain medical attention immediately.</b>

### **PREVENTIVE MEASURES:**

Engineering Controls:	Local exhaust ventilation.
Respiratory Protection:	NIOSH/MSHA approved air-purifying respirator equipped with Chlorine cartridges when necessary.
Skin Protection:	Use rubber gloves and apron. Rubber boots if necessary also.
Eye Protection:	Use chemical safety goggles when there is potential for eye contact.
Other Personal Protective Equipment:	Safety showers and eyewash fountains should be installed in storage and handling areas.
Handling Procedures and Equipment:	Protect containers against physical damage.
Storage Temperature (°C):	Below 29°C and above freezing point.
Storage Requirements:	Store in a cool (below 29°C) dry, well-ventilated area away from incompatibles and direct sunlight. Long-term storage is

impossible without decomposition. Use polyethylene containers.

Other Precautions: No special requirements.

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#### **ENVIRONMENTAL PROTECTION DATA:**

Steps to be taken in the event of a spill or leak:

Ventilate area. Stop and contain leak or spill. Absorb using an inert material (sand, ashes, etc.), collect and dispose. For recovery, pump into polyethylene containers.

Waste Disposal Methods: Consult federal, provincial, state and local regulations on chemical waste disposal.

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#### **ADDITIONAL INFORMATION AND SOURCES USED:**

SAX, N.I., Dangerous Properties of Industrial Materials.

Supplier's MSDS

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