



SODIUM HYPOCHLORITE 5-15%

Chemwatch Material Safety Data Sheet
For Domestic Use Only.
Issue Date: 17-Mar-2010
C9477SD

CHEMWATCH 3313032
Version No:2.0
CD 2010/2 Page 1 of 7

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

SODIUM HYPOCHLORITE 5-15%

STATEMENT OF HAZARDOUS NATURE

Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation.

PROPER SHIPPING NAME

HYPOCHLORITE SOLUTION

PRODUCT USE

Disinfectant, bleaching agent, source of available chlorine, deodorizer

SUPPLIER

Company: Jasol
Address:
105 Rutherford Street
Christchurch,
New Zealand
Telephone: +64 3 384 4433
Emergency Tel: 0800 243 622
Fax: +64 3 384 4431
Email: jasolauckorders@gwf.com.au

Company: Jasol
Address:
151B Marua Road
Ellerslie
Auckland,
New Zealand
Telephone: +64 9 580 2105
Emergency Tel: 0800 429 628
Fax: +64 9 571 4388

Section 2 - HAZARDS IDENTIFICATION

GHS Classification

Acute Aquatic Hazard Category 1
Metal Corrosion Category 1
Serious Eye Damage Category 1
Skin Corrosion/Irritation Category 1C
Skin Sensitizer Category 1



EMERGENCY OVERVIEW

HAZARD

DANGER

Determined by Chemwatch using GHS/HSNO criteria:

6.5B 8.1A 8.2C 8.3A 9.1A
May cause allergic skin reaction
May be corrosive to metals
Causes severe skin burns and eye damage
Causes serious eye damage
Very toxic to aquatic life

PRECAUTIONARY STATEMENTS

Prevention

Keep only in original container.
Do not breathe dust/fume/gas/mist/vapours/spray.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Wash thoroughly after handling.
Contaminated work clothing should not be allowed out of the workplace.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.

continued...

SODIUM HYPOCHLORITE 5-15%

Chemwatch Material Safety Data Sheet

For Domestic Use Only.

Issue Date: 17-Mar-2010

C9477SD

CHEMWATCH 3313032

Version No:2.0

CD 2010/2 Page 2 of 7

Section 2 - HAZARDS IDENTIFICATION

Response

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN: Wash with plenty of soap and water.

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

IF INHALED: Remove to fresh air and keep at rest in a position 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 CENTER or doctor/physician.

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

Absorb spillage to prevent material damage.

Collect spillage.

Storage

Store locked up.

Store in corrosive resistant container or with a resistant inner liner.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
sodium hypochlorite	7681-52-9	5.4-13.2
sodium hydroxide	1310-73-2	0.1-0.5
sodium chloride	7647-14-5	4-12
water	7732-18-5	balance

Section 4 - FIRST AID MEASURES

NEW ZEALAND POISONS INFORMATION CENTRE 0800 POISON (0800 764 766)

NZ EMERGENCY SERVICES: 111

SWALLOWED

- For advice, contact a Poisons Information Centre or a doctor at once.
- Urgent hospital treatment is likely to be needed.
- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.

EYE

- If this product comes in contact with the eyes:
- Immediately hold eyelids apart and flush the eye continuously with running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
- Transport to hospital or doctor without delay.

SKIN

- If skin or hair contact occurs:
- Immediately flush body and clothes with large amounts of water, using safety shower if available.
- Quickly remove all contaminated clothing, including footwear.
- Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre.
- Transport to hospital, or doctor.

INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
- Inhalation of vapours or aerosols (mists, fumes) may cause lung oedema.
- Corrosive substances may cause lung damage (e.g. lung oedema, fluid in the lungs).
- As this reaction may be delayed up to 24 hours after exposure, affected individuals need complete rest (preferably in semi-recumbent posture) and must be kept under medical observation even if no symptoms are (yet) manifested.
- Before any such manifestation, the administration of a spray containing a dexamethasone derivative or beclomethasone derivative may be considered.

NOTES TO PHYSICIAN

■ Excellent warning properties force rapid escape of personnel from chlorine vapour thus most inhalations are mild to moderate. If escape is not possible, exposure to high concentrations for a very short time can result in dyspnea, haemophysis and cyanosis with later complications being tracheobroncho-pneumonitis and pulmonary oedema.

for corrosives:

BASIC TREATMENT

- Establish a patent airway with suction where necessary.
 - Watch for signs of respiratory insufficiency and assist ventilation as necessary.
 - Administer oxygen by non-rebreather mask at 10 to 15 l/min.
 - Monitor and treat, where necessary, for pulmonary oedema.
- For acute or repeated exposures to hypochlorite solutions:
- Release of small amounts of hypochlorous acid and acid gases from the stomach following ingestion, is usually too low to cause damage but may be

continued...

SODIUM HYPOCHLORITE 5-15%

Chemwatch Material Safety Data Sheet

For Domestic Use Only.

Issue Date: 17-Mar-2010

C9477SD

CHEMWATCH 3313032

Version No:2.0

CD 2010/2 Page 3 of 7

Section 4 - FIRST AID MEASURES

- irritating to mucous membranes. Buffering with antacid may be helpful if discomfort is evident.
 - Evaluate as potential caustic exposure.
 - Decontaminate skin and eyes with copious saline irrigation. Check exposed eyes for corneal abrasions with fluorescein staining.
 - Emesis or lavage and catharsis may be indicated for mild caustic exposure.
- Depending on the degree of exposure, periodic medical examination is indicated. The symptoms of lung oedema often do not manifest until a few hours have passed and they are aggravated by physical effort.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- Water spray or fog.
- Foam.
- Dry chemical powder.
- BCF (where regulations permit).

FIRE/EXPLOSION HAZARD

- Non combustible.
 - Not considered a significant fire risk, however containers may burn.
- Decomposition may produce toxic fumes of: hydrogen chloride.
May emit corrosive fumes.

FIRE INCOMPATIBILITY

- None known.

Personal Protective Equipment

Gas tight chemical resistant suit.

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS

- Drains for storage or use areas should have retention basins for pH adjustments and dilution of spills before discharge or disposal of material.
- Check regularly for spills and leaks.
- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact by using protective equipment.
- Contain and absorb spill with sand, earth, inert material or vermiculite.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- DO NOT allow clothing wet with material to stay in contact with skin.
- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Avoid contact with moisture.

SUITABLE CONTAINER

Liquid inorganic hypochlorites shall not to be transported in unlined metal drums. Inner packagings shall be fitted with vented closures and plastics drums and carboys shall have vented closures or be performance tested to a minimum of 250 kPa.

- Lined metal can, lined metal pail/ can.
- Plastic pail.
- Polyliner drum.
- Packing as recommended by manufacturer.

For low viscosity materials

- Drums and jerricans must be of the non-removable head type.
- Where a can is to be used as an inner package, the can must have a screwed enclosure. <</>.

STORAGE REQUIREMENTS

- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.

continued...

SODIUM HYPOCHLORITE 5-15%

Chemwatch Material Safety Data Sheet
For Domestic Use Only.
Issue Date: 17-Mar-2010
C9477SD

CHEMWATCH 3313032
Version No:2.0
CD 2010/2 Page 4 of 7

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA ppm	TWA mg/m ³	STEL ppm	STEL mg/m ³	Peak mg/m ³
New Zealand Workplace Exposure Standards (WES)	Sodium Hypochlorite 5- 15% (Chlorine)	0.5	1.5	1	2.9	
New Zealand Workplace Exposure Standards (WES)	sodium hypochlorite (Chlorine)	0.5	1.5	1	2.9	
New Zealand Workplace Exposure Standards (WES)	sodium hydroxide (Sodium hydroxide)					2

The following materials had no OELs on our records

- sodium chloride: CAS:7647- 14- 5
- water: CAS:7732- 18- 5

PERSONAL PROTECTION

RESPIRATOR

Type B-P Filter of sufficient capacity

EYE

- Chemical goggles.
- Full face shield may be required for supplementary but never for primary protection of eyes
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

HANDS/FEET

- Wear chemical protective gloves, eg. PVC.
- Wear safety footwear or safety gumboots, eg. Rubber.
- When handling corrosive liquids, wear trousers or overalls outside of boots, to avoid spills entering boots.

NOTE:

- The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.
 - Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.
- Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include: such as:
- frequency and duration of contact,
 - chemical resistance of glove material,
 - glove thickness and
 - dexterity.

OTHER

- Overalls.
- PVC Apron.
- PVC protective suit may be required if exposure severe.
- Eyewash unit.

ENGINEERING CONTROLS

- General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in special circumstances.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Clear, greenish-yellow solution with strong chlorine odour; mixes with water.

PHYSICAL PROPERTIES

Liquid.
Mixes with water.
Corrosive.
Contact with acids liberates toxic gas.

State	Liquid	Molecular Weight	74.44
Melting Range (°C)	- 15 approx (12% trade)	Viscosity	Not Available
Boiling Range (°C)	Not Available	Solubility in water (g/L)	Miscible

continued...

SODIUM HYPOCHLORITE 5-15%

Chemwatch Material Safety Data Sheet

For Domestic Use Only.

Issue Date: 17-Mar-2010

C9477SD

CHEMWATCH 3313032

Version No:2.0

CD 2010/2 Page 5 of 7

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Flash Point (°C)	Not Available	pH (1% solution)	Not Available
Decomposition Temp (°C)	Not Available	pH (as supplied)	<12
Autoignition Temp (°C)	Not Available	Vapour Pressure (kPa)	Not Available
Upper Explosive Limit (%)	Not Available	Specific Gravity (water=1)	1.17 @ 20C (12% trade)
Lower Explosive Limit (%)	Not Available	Relative Vapour Density (air=1)	Not Available
Volatile Component (%vol)	Not Available	Evaporation Rate	Not Available

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

EYE

- The material can produce chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating.
- When applied to the eye(s) of animals, the material produces severe ocular lesions which are present twenty-four hours or more after instillation.
- Hypochlorite in pool water at concentrations of 1 ppm chlorine or less is non irritating to eyes if the pH is higher than 7.2 (slightly alkaline). At lower pH, a sensation of stinging, smarting of eyes with transient reddening may occur but generally no injury.
- Eye contact with a 5% hypochlorite solution may produce a temporary burning discomfort and slight irritation of the corneal epithelium with no injury.
- The material can produce severe chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating.

INHALED

- Evidence shows, or practical experience predicts, that the material produces irritation of the respiratory system in a substantial number of individuals following inhalation.

CHRONIC HEALTH EFFECTS

- Repeated or prolonged exposure to corrosives may result in the erosion of teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely) of the jaw. Bronchial irritation, with cough, and frequent attacks of bronchial pneumonia may ensue.

On the basis, primarily, of animal experiments, concern has been expressed by at least one classification body that the material may produce carcinogenic or mutagenic effects; in respect of the available information, however, there presently exists inadequate data for making a satisfactory assessment.

Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.

There exists limited evidence that shows that skin contact with the material is capable either of inducing a sensitisation reaction in a significant number of individuals, and/or of producing positive response in experimental animals.

Reduced respiratory capacity may result from chronic low level exposure to chlorine gas. Chronic poisoning may result in coughing, severe chest pains, sore throat and haemoptysis (bloody sputum).

Delayed effects can include shortness of breath, violent headaches, pulmonary oedema and pneumonia.

TOXICITY AND IRRITATION

- Hypochlorite salts are classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans.

Evidence of carcinogenicity may be inadequate or limited in animal testing.

Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound.

Hypochlorite salts are extremely corrosive and can cause severe damage to the eyes and skin.

A number of fibrosarcomas and squamous cell carcinomas were observed in mice treated dermally with repeated subcarcinogenic doses of 4-nitroquinoline-1-oxide, followed by dermal treatment with sodium hypochlorite.

CARCINOGEN

Hypochlorite salts

International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs

Group

3

continued...

SODIUM HYPOCHLORITE 5-15%

Chemwatch Material Safety Data Sheet
For Domestic Use Only.
Issue Date: 17-Mar-2010
C9477SD

CHEMWATCH 3313032
Version No:2.0
CD 2010/2 Page 6 of 7

Section 12 - ECOLOGICAL INFORMATION

Very toxic to aquatic organisms.
This material and its container must be disposed of as hazardous waste.
Avoid release to the environment.
Refer to special instructions/ safety data sheets.

Ecotoxicity Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
sodium hypochlorite			LOW	
sodium hydroxide	LOW		LOW	HIGH
sodium chloride	LOW		LOW	HIGH
water	LOW		LOW	HIGH

Section 13 - DISPOSAL CONSIDERATIONS

- Recycle where possible
Otherwise ensure that:
- licenced contractors dispose of the product and its container.
- disposal occurs at a licenced facility.

Section 14 - TRANSPORTATION INFORMATION



Labels Required: CORROSIVE

HAZCHEM:
2X

Land Transport UNDG:

Class or division:	8	Subsidiary risk:	None
UN No.:	1791	UN packing group:	III
Shipping Name:	HYPOCHLORITE SOLUTION		

Air Transport IATA:

ICAO/IATA Class:	8	ICAO/IATA Subrisk:	None
UN/ID Number:	1791	Packing Group:	III
Special provisions:	A3		

Shipping Name: HYPOCHLORITE SOLUTION †

Maritime Transport IMDG:

IMDG Class:	8	IMDG Subrisk:	None
UN Number:	1791	Packing Group:	III
EMS Number:	F- A , S- B	Special provisions:	223
Limited Quantities:	5 L	Marine Pollutant:	Yes
Shipping Name:	HYPOCHLORITE SOLUTION		

Section 15 - REGULATORY INFORMATION

NOTES

This substance should be managed in accordance with the requirements specified in the Cleaning Products (Oxidising [5.1.1], Corrosive) Group Standard 2006, HSNO Approval Number HSR002591.

REGULATIONS

Regulations for ingredients

sodium hypochlorite (CAS: 7681-52-9,10022-70-5) is found on the following regulatory lists;

"GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "International Council of Chemical Associations (ICCA) - High Production Volume List", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Chemicals (single components)", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals", "New Zealand Hazardous Substances and New Organisms

continued...

SODIUM HYPOCHLORITE 5-15%

Chemwatch Material Safety Data Sheet

For Domestic Use Only.

Issue Date: 17-Mar-2010

C9477SD

CHEMWATCH 3313032

Version No:2.0

CD 2010/2 Page 7 of 7

Section 15 - REGULATORY INFORMATION

(HSNO) Act - Classification of Chemicals - Classification Data", "New Zealand Inventory of Chemicals (NZIoC)", "OECD Representative List of High Production Volume (HPV) Chemicals"

sodium hydroxide (CAS: 1310-73-2) is found on the following regulatory lists;

"CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "International Council of Chemical Associations (ICCA) - High Production Volume List", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Scheduled Toxic Substances", "New Zealand Inventory of Chemicals (NZIoC)", "New Zealand Workplace Exposure Standards (WES)", "OECD Representative List of High Production Volume (HPV) Chemicals"

sodium chloride (CAS: 7647-14-5) is found on the following regulatory lists;

"New Zealand Hazardous Substances and New Organisms (HSNO) Act - Chemicals (single components)", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Veterinary Medicines", "New Zealand Inventory of Chemicals (NZIoC)", "OECD Representative List of High Production Volume (HPV) Chemicals"

water (CAS: 7732-18-5) is found on the following regulatory lists;

"IMO IBC Code Chapter 18: List of products to which the Code does not apply", "New Zealand Inventory of Chemicals (NZIoC)", "OECD Representative List of High Production Volume (HPV) Chemicals"

No data for Sodium Hypochlorite 5-15% (CW: 3313032)

Specific advice on controls required for materials used in New Zealand can be found at
<http://www.ermanz.govt.nz/search/registers.html>

Section 16 - OTHER INFORMATION

NEW ZEALAND POISONS INFORMATION CENTRE

0800 POISON (0800 764 766)

NZ EMERGENCY SERVICES: 111

INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name

sodium hypochlorite

CAS

7681- 52- 9, 10022- 70- 5

■ Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:

www.chemwatch.net/references.

■ The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

This document is copyright. Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH. TEL (+61 3) 9572 4700.

Issue Date: 17-Mar-2010

Print Date: 29-Jul-2010