

**MATERIAL SAFETY DATA SHEET**

**IDENTIFICATION**

**Product Name:**                    **XY PLUS**

Trade Name:	U.N. Number:	1791
Other Names:	Dangerous Good Class:	8
Manufacturers Code:	& Subsidiary Risk:	Nil
	Hazchem Code:	2X
	Poison Schedule:	S5

**Use:**                    **Bleach/Sterilising Disinfectant**

**Physical Description/Properties**

Appearance:	Pale yellow or green
Boiling Point/Melting Point (°C):	100°C- 100°C
Vapour Pressure (mm of Hg at 25°C)	20°C
Specific Gravity	1.15-1.2
Flash Point (°C):	Nil
Flammability Limits (%):	Nil
Autoignition Temperature (°C)	Nil
Plus other properties if applicable:	

**Ingredients:**

The odour threshold should be similar to that of chlorine, 0.3 ppm. Acute, subchronic, and chronic toxicity studies have shown no significant treatment related effects. High concentrations may produce moderate to severe eye irritation, but not permanent injury. High doses also appear to be embryotoxic. Since nearly all sodium hypochlorite is handled as aqueous solution, airborne exposure is likely to be as an aerosol, or mist. Sodium hypochlorite dissociates in water to form free hypochlorous acid in equilibrium. The toxic effects are likely to be similar to those of chlorine or sodium hydroxide.

---

This information is, to the best of our knowledge, true and accurate, but any recommendations or suggestions which may be made are without guarantee, since the conditions of use are beyond our control. Furthermore, nothing contained herein shall be construed as a recommendation to use any product in conflict with existing patents covering any material or its use.

## **HEALTH HAZARD INFORMATION**

### **Health Effects:**

**Swallowed:** Considered an unlikely route of entry in commercial/industrial environments. The liquid is corrosive to the gastro-intestinal tract and harmful if swallowed. Ingestion may cause irritation of the mucous membranes, pain and inflammation of the mouth and stomach, vomiting, fall of blood pressure, shock, confusion, delirium, coma and, in severe cases, death. Perforation of the esophagus or stomach may occur.

**Eyes:** The liquid is corrosive to the eyes and is capable of causing severe damage with loss of sight if contact is prolonged. The vapour is highly discomforting to the eyes. The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

**Skin:** The liquid is highly discomforting to the skin and is capable of causing skin reactions, which may lead to dermatitis if exposure is prolonged. Skin contact will result in rapid drying, bleaching, leading to chemical burns on prolonged contact. The material may cause irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic.) This form of dermatitis is often characterized by skin redness (erythema) and swelling (oedema) which may progress to vesiculation, scaling and thickening of the epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis. Contact may cause severe itchiness, skin lesions and mild eczema. A few individuals may show allergic/sensitization responses which may be minor to severe. Exposure will aggravate this pre-existing condition and those with sensitization reactions should not be required to work where exposure may occur.

**Inhaled:** The vapor is highly discomforting to the upper respiratory tract and lungs. The material may produce respiratory tract irritation, which produces an inflammatory response involving the recruitment and activation of many cell types, mainly derived from the vascular system. Unlike most organs the lung can respond to a chemical insult or agent by first trying to remove or neutralize the irritant and then repairing the damage. The repair process, which initially developed to protect mammalian lungs from foreign matter and antigens, may however, cause further damage to the lungs when activated by hazardous chemicals. The result is often the impairment of gas exchange, the primary function of the lungs. Excessive inhalation of vapors, mists or fumes may cause bronchial irritation, coughing, laboured breathing, nausea and pulmonary oedema. Additional effects have included circulatory collapse and confusion, delirium and coma. If warmed to temperatures greater than 40°C or mixed with acids, toxic and irritation chlorine gas is released.

---

This information is, to the best of our knowledge, true and accurate, but any recommendations or suggestions which may be made are without guarantee, since the conditions of use are beyond our control. Furthermore, nothing contained herein shall be construed as a recommendation to use any product in conflict with existing patents covering any material or its use.

**First Aid:**

**Swallowed:** If poisoning occurs, contact a doctor or Poisons Information Centre. In New Zealand 03 4747000.  
If swallowed, do not induce vomiting. Give glass of water.

**Eyes:** If this product comes in contact with the eyes:

1. Immediately hold the eyes open and wash continuously for at least 15 minutes with fresh running water.
2. 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.
3. Transport to hospital or doctor without delay.

**Skin:** If this product comes in contact with the skin:

1. Immediately flush body and clothes with large amounts of water, using safety shower if available.
2. Quickly remove all contaminated clothing, including footwear.
3. Wash affected areas with water ( and soap if available) for at least 15 minutes.
4. Transport to hospital, or doctor.

**Inhaled:** If fumes or combustion products are inhaled:

1. Remove to fresh air.
2. Lay patient down. Keep warm and rested.
3. Prosthesis such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
4. If available, administer medical oxygen by trained personnel.
5. If breathing is shallow or has stopped, ensure clear airway and apply resuscitation, preferably with a demand valve resuscitator, baf-valve mask device, or pocket mask as trained. Perform CPR if necessary.
6. Transport to hospital, or doctor, without delay.

## **PRECAUTIONS FOR USE**

**Advice to Doctor:**

1. Release small amounts of hypochlorous acid and acid gases from the stomach following ingestion, is usually too low to cause damage by may be irritation to mucous membranes. Buffering with antacid may be helpful.
2. Evaluate as potential caustic exposure
3. Decontaminate skin and eyes with copious saline irrigation. Check exposed eyes for corneal abrasions with fluorescein staining.
4. Emesis or lavage and catharsis may be indicated for mild caustic exposure.
5. Chlorine exposures require evaluation of acid/base and respiratory status.
6. Inhalation of vapours or mists may result in pulmonary oedema

**Exposure Limits:** Not established.

**Ventilation:** Poorly ventilated areas may require respiratory protection.

**Personal Protection:** Safety glasses, gloves, overalls, boots

**Flammability:** Nil

## **SAFE HANDLING INFORMATION**

**Storage and Transport:** Container must have vented cap. Packing as recommended by manufacturer. Check all containers are labeled and free from leaks.

**Spills and Disposal:** Small spills – flush with large quantities of water. Use protective gear. Advise emergency services if contamination of waterways occurs.  
Large spills – Wear protective gear. Wash area with water. Cover and contain spill with a 1:1:1 mixture by weight of sodium carbonate or calcium carbonate, bentonite and sand. Scoop the absorbed contents into a container of cold water, work in a ventilated area Neutralize with 6M hydrochloric acid (add concentrated acid to an equal volume of cold water)

**Fire/Explosion and Hazard:** Non combustible liquid

**Other Information:**

<b>Contact Point:</b>	<b>(09) 262-0800</b>	<b>Issue Date:</b>	<b>15<sup>th</sup> March 1999.</b>
-----------------------	----------------------	--------------------	------------------------------------

-----  
This information is, to the best of our knowledge, true and accurate, but any recommendations or suggestions which may be made are without guarantee, since the conditions of use are beyond our control. Furthermore, nothing contained herein shall be construed as a recommendation to use any product in conflict with existing patents covering any material or its use.