



Section 1 – Identification of the substance/preparation and the company

Product Name: Hypo
Company: Donaghys Ltd
Address: 16 Sheffield Crescent
PO Box 20 449
Christchurch
Telephone Number: 0800 942 006
Manufacturers Product Code: AHY0020 / AHY0100 / AHY0200
Recommended Use: Removes dairy soil from walls, floors and pipework and may be used as a booster when mixed with alkali wash through the plant and bulk milk tank.

Section 2 – Hazard Identification

HSNO Classes: 8.2C, 8.3A, 9.1B
GHS Hazard Classifications: Causes severe skin burns and eye damage
Causes serious eye damage
Toxic to aquatic life with long lasting effects



Hazard Statements:
H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage
H411 - Toxic to aquatic life with long lasting effects

Precaution Statements:
P102 - Keep out of reach of children
P103 - Read label before use
P260 - Do not breathe dust/fume/gas/mist/vapours/spray
P264 - Wash hands thoroughly after handling
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P273 - Avoid release to the environment

Signal Word: DANGER

EPA NZ Approval Code: HSR002526
Cleaning Products (Corrosive) Group Standard

Section 3 – Composition Information

Chemical Entity	CAS No.	Content [%]
Sodium hypochlorite	7681-52-9	5-25%%

Section 4 – First Aid Measures

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If Swallowed:	Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTRE or doctor/physician.
If in eyes:	Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so, continue rinsing. Immediately call a POISON CENTRE or doctor / physician.
If on skin:	Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before re-use. Immediately call a POISON CENTRE or doctor/physician
If inhaled:	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms, immediately call a POISON CENTRE or doctor / physician.
Advice to Doctor:	Treat symptomatically.

If medical advice is needed, have product container or label at hand. POISON CENTRE CONTACT: 0800 764 766 (National Poisons Information Centre)

Section 5 – Fire-fighting Measures

Flashpoint:	Not applicable
Combustion Products:	Decomposes on heating and may produce toxic fumes of chlorine caustic compounds
Flammability Limits:	Not applicable
Protective Equipment:	Wear full body protective clothing with breathing apparatus
Extinguishing Media:	Water spray or fog. Foam. Dry chemical powder. BCF (where regulations permit). Carbon dioxide.
Special Fire Fighting Methods:	Use fire fighting procedures suitable for surrounding area Do not approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use. When any large container (including road and rail tankers) is involved in a fire, consider evacuation by 800 metres in all directions.

Section 6 – Accidental Release Measures

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Spills and Disposal:

MINOR SPILLS

Clean up all spills immediately.
Avoid breathing vapours and contact with skin and eyes.
Wear protective clothing, impervious gloves and safety glasses.
Neutralise with sodium metabisulfite or sodium thiosulfate.
Wipe up and absorb small quantities with vermiculite or other absorbent material.
Place in suitable containers for disposal.
Wash spill area with large quantities of water.

MAJOR SPILLS

Clear area of personnel and move upwind
Alert Fire Brigade and tell them location and nature of hazard.
Wear full body protective clothing with breathing apparatus.
Prevent, by any means available, spillage from entering drains or water courses.
Increase ventilation.
Stop leak if safe to do so.
Contain spill with sand, earth or vermiculite.
Collect recoverable product into labelled containers for recycling

Neutralise with sodium metabisulfite or sodium thiosulfate.
Absorb remaining product with sand, earth or vermiculite.
Collect residues and seal in labelled drums for disposal
Wash spill area with large quantities of water.
If contamination of drains or waterways occurs, advise emergency services.
After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.

DISPOSAL

Recycle wherever possible. Consult manufacturer for recycling options.
Consult State Land Waste Management Authority for disposal.
Treat and neutralise at an effluent treatment plant.
Bury residue in an authorised landfill.
Puncture containers to prevent re-use.

Protective Equipment:

Wear neoprene gloves and boots, overalls and face/eye protection

Environmental Precautions:

Avoid entry into waterways or streams. Prevent washings from entering waterways.

Section 7– Handling and Storage

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Storage:

SUITABLE CONTAINER

Glass container and Container to have vented cap
Polyethylene or polypropylene container. Packing as recommended by manufacturer
Check all containers are clearly labelled and free from leaks.

Not to be transported in unlined metal drums. Inner packaging 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.

All non-vented packaging shall be filled so that the ullage is at least 10% at 21-25°C. Vented packages may be filled to an ullage not less than 5% at 21-25°C, provided that this ullage does not result in leakage from, nor distortion of, the packaging. [ADG Code]

STORAGE INCOMPATIBILITY

Avoid storage with amines, methanol, copper, peroxides, metal salts, reducing agents, acids, ammonium salts, solvents, combustible materials, greases and wood. Contact with acids liberates toxic gases i.e. chlorine

STORAGE REQUIREMENTS

Store locked up, in original containers and store in an upright position. Store away from incompatible materials. DO NOT store near acids. DO NOT store on wooden floors. Store in a well-ventilated area.

Keep containers securely sealed.

Protect from light. Protect containers against physical damage. Check regularly for spills and leaks

Observe manufacturer's storing and handling recommendations.

Handling:

Do not handle until all safety instructions have been read and understood.

Wear eye / face protection.

In case of inadequate ventilation wear respiratory protection.

Contaminated work clothing should not be allowed out of the workplace.

Avoid release to the environment.

Section 8 – Exposure Controls/Personal Protection

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These precautions are suggested for conditions where the potential for exposure to the product exists. Emergency conditions may require additional precautions.

Exposure Limits:

SODIUM HYPOCHLORITE:

available chlorine, as chlorine
 TLV TWA: 0.5 ppm, 1.5 mg/m³:
 STEL: 1 ppm, 2.9 mg/m³
 ES Peak: 1 ppm, 3 mg/m³ (Under review)
 CEL TWA: 2 mg/m³ (compare WEEL TWA)
 The odour threshold is likely to 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.

Protective Equipment:

EYES

Chemical goggles.
 Full face shield.
 Contact lenses pose a special hazard; soft lenses may absorb irritants and all lenses concentrate them.

HANDS / FEET

Wear chemical protective gloves. e.g. PVC gloves with barrier cream
 Wear safety footwear or PVC safety gumboots

OTHER

Overalls.
 PVC Apron.
 PVC protective suit may be required if exposure severe.
 Eyewash unit.
 Ensure there is ready access to a safety shower.
 Use respirator as required (see Engineering Controls)

Hygiene Precautions:

Do not eat, drink or smoke when using this product.

Engineering Controls:

CARE: Use of a quantity of this material in confined space or poorly ventilated area, where rapid build up of concentrated atmosphere may occur, could require increased ventilation and/or protective gear Use in a well-ventilated area General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in specific circumstances. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas.

Section 9 – Physical and Chemical Properties

Appearance:

Clear, pale yellow-greenish liquid

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Odour:	Chlorine odour
Melting Point	Approx -25°C (12% conc)
Specific Gravity:	N/A
pH:	N/A
Vapour Pressure:	N/A
Flash Point:	N/A
Autoignition Temperature:	N/A
Flammability Limits:	N/A
Solubility:	miscible

Section 10 – Stability and Reactivity

Stability:	Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
Conditions to Avoid:	None
Materials to Avoid:	Avoid any contamination of this material as it is very reactive, and any contamination is potentially hazardous. Avoid reaction with copper, acids, ammonium salts and oxidisable materials. Reacts explosively with amines and methanol. When finely divided materials such as sugar, wood dust and paper are contaminated with the solution they burn more readily when dry. Incompatible with bowl cleaners containing bisulfites
Hazardous Decomposition Products:	Reaction products as above

Section 11 – Toxicological Information

No adverse health effects are expected if the product is handled in accordance with this Safety Data Sheet and the product label.

Ingestion:	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.
Inhalation:	The vapour is highly discomforting to the upper respiratory tract and lungs. The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function. Excessive inhalation of vapours, 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 irritating chlorine gas is released.
Dermal:	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

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drying, bleaching, leading to chemical burns on prolonged contact. The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling 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/sensitisation responses which may be minor to severe. Exposure will aggravate this pre-existing condition and those with sensitisation reactions should not be required to work where exposure may occur.

Ocular:

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.

Chronic Effects:

Principal routes of exposure are usually by skin contact / eye contact and inhalation of vapour. Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following. Necrosis and haemorrhage of the upper digestive tract, oedema and pulmonary emphysema were found on autopsy after suicidal ingestion, and methemoglobinemia was also reported in another fatal case.

Absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyper reactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure due to high concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases. The disorder is characterised by dyspnea, cough and mucous production.

Section 12 - Ecological Information

EPA Classification: 9.1B

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Ecotoxicity: Toxic to aquatic life
Bioaccumulation: Not known to bioaccumulate

Section 13 – Disposal Considerations

Product Disposal: Preferably dispose of product by use. Otherwise dispose of product, packaging and waste at an approved landfill or equivalent facility in accordance with local, regional and national environmental regulations. Donaghys is a member of Agrecovery Container Recycling programme. For details on how to correctly prepare your container and collection sites please visit www.agrecovery.co.nz.

Section 14 – Transport Information

Proper Shipping Name: HYPOCHLORITE SOLUTION
UN Number: 1791
DG Class: 8
Subsidiary Risk Class: None
Packing Group: III
HAZCHEM Code: 2X

Section 15 – Regulatory Information

EPA NZ Approval Number: HSR002526
See <http://www.epa.govt.nz> for approval conditions
NZFSA Registration Number: H1060-2

Section 16 – Other Information

The information in this MSDS is provided in good faith, but no warranty, expressed or implied is made. Contact Donaghys Ltd for more information.

EMERGENCY CONTACT No.: 0800 764 766 (National Poisons Information Centre)