

# Material Safety Data Sheet

## Cleaning Solution 1

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Cleaning Solution 1 (6% Sodium Hypochlorite Solution).

**Catalog Numbers:** DP8858

**Use:** General chemical.

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NOBLE PARK VIC 3174  
AUSTRALIA  
Tel: +61 3 9790 4100  
Fax: +61 3 9790 4155  
E-mail: [info.clinicalchemistry@thermo.com](mailto:info.clinicalchemistry@thermo.com)

THERMO ELECTRON  
331 South 104<sup>th</sup> Street  
LOUISVILLE, CO 80027  
U.S.A  
Tel: (303) 581 6428  
Fax: (303) 581 6429  
E-mail: [info.clinicalchemistry@thermo.com](mailto:info.clinicalchemistry@thermo.com)

**Contact Point**

Australia  
Quality Assurance Manager:  
Tel: +61 3 9790 4100  
Mon – Fri 9:00am to 5:00pm

U.S.A  
Chemtel  
24 Hour Emergency Assistance  
1-800-255-3924

### 2. HAZARDS IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO EU CRITERIA

**Hazard Classification:** HAZARDOUS SUBSTANCE, DANGEROUS GOODS.

**Hazard Category:** Irritant (Xi)

**RISK PHRASES**

R31 Contact with acids liberates toxic gas.  
R38 Irritating to skin.  
R41 Risk of serious damage to eyes.

**SAFETY PHRASES**

S1/2 Keep locked up and out of reach of children.  
S28 After contact with skin, wash immediately with plenty soap and water.  
S45 In case of accident or if you feel unwell, contact a doctor or Poisons Information Centre immediately and show this container or label.  
S50 Do not mix with acids.

**Poison Schedule:** S5 [Aust]

This material is a Scheduled **S5** Poison and must be stored, handled and used according to the appropriate regulations.

**Warning Statement:**

Irritating to eyes and skin. Mixing acids will liberate toxic chlorine gas.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE NAME	Proportion	CAS Number
SODIUM HYPOCHLORITE SOLUTION	1 to 5 %	7681-52-9
WATER AND OTHER NON-HAZARDOUS SUBSTANCES	Balance	Mixture

All other ingredients determined not to be hazardous according to the EU criteria.

### 4. FIRST AID MEASURES

**Swallowed:** If swallowed, **DO NOT** induce vomiting. If victim is conscious give water to drink. Immediately transport to hospital or doctor.

**Eye:** If product enters the eyes, flush with plenty of water for at least 15 minutes, ensuring eye lids are held open. Seek medical aid immediately.

# Material Safety Data Sheet

## Cleaning Solution 1

### 4. FIRST AID MEASURES

**Skin:** If product contacts the skin, remove any contaminated clothing and wash skin thoroughly with water and soap. Immediately transport to hospital or doctor.

**Inhaled:** Remove victim to fresh air. Do not use mouth-to-mouth method if victim inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Administer oxygen if breathing is difficult.

**First Aid Facilities:** Eye wash fountain, safety shower and normal wash room facilities.

**Advice to Doctor:** Treat symptomatically.

In case of poisoning, contact Poisons Information Centre

**In Australia call Tel: 131126**

**In New Zealand Tel: 034747000**

### 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media:** Foam, dry chemical or carbon dioxide.

**Hazards from Combustion Products:** Decomposes on heating emitting toxic fumes of chlorine and sodium oxide at high temperatures.

**Precautions for Fire Fighters and Special Protective Equipment:** If safe to do so, move undamaged containers from fire area. Fire fighters to wear Self-contained breathing apparatus (SCBA). If possible to do so safely, shut off fuel to fire. Avoid spreading burning liquid with water used for cooling fire exposed containers when using water spray, boil-over may occur when the product temperature reaches the boiling point of water, thereby resulting in re-ignition.

**Hazchem Code:** 2X [Aust].

**Flammability:** This material is not a flammable or combustible liquid.

### 6. ACCIDENTAL RELEASE MEASURES

#### Emergency Procedures

Corrosive liquid. Avoid contamination with acids. Keep unnecessary people away; Isolate hazard area and deny entry. Ventilate area. Wear suitable protective equipment as outlined under personal protection in this MSDS.

#### Methods and Materials for Containment and Cleanup Procedures

Throw diatomaceous earth onto spill. **DO NOT** use sawdust. Use non-sparking tools or HEPA vacuum system to pick up. Place into labelled drum(s) for later disposal. If risk of fire, blanket the spill with foam or use water fog to disperse vapour clouds. Consult an expert regarding disposal of this product.

#### Emergency Information(Transport)

Dangerous Goods - Initial Emergency Response Guide (IERG) (SAA/SNZ HB76:1997)

For **TOXIC AND/OR CORROSIVE SUBSTANCES** Guide No: 37

### 7. HANDLING AND STORAGE

#### Precautions for Safe Handling

Provide adequate ventilation. Corrosive liquid. Avoid mixing with acids. Avoid contact with skin and eyes.

#### Conditions for Safe Storage

Store in a cool place and out of direct sunlight. Store away from sources of heat or ignition. Store away from ammonia, amines, ammonium salts, aziridine, methanol, phenyl acetonitrile, cellulose, ethyleneimine, oxidizable metals, acids, soaps, and bisulfates. Store at 2-25°C and the reagent will be stable until the expiry date stated on the bottle and kit box labels. Keep containers tightly closed, when not using the product. Store in original packaging as approved by manufacturer.

# Material Safety Data Sheet

## Cleaning Solution 1

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Exposure Standards

No exposure standards have been assigned by NOHSC for this product however, the following exposure standards have been assigned to the following component of the product.

#### SODIUM HYPOCHLORITE SOLUTION

OSHA Permissible Exposure Limit (PEL):

[TWA] 0.5 ppm

[STEL] 1 ppm as chlorine

#### Engineering Controls

Corrosive liquid. Maintain adequate ventilation at all times. In most circumstances natural ventilation systems are adequate.

#### Personal Protection Equipment

**Gloves:** Neoprene or nitrile.

**Eyes:** Chemical glasses or face shield to protect eyes.

**Respiratory Protection:** Avoid breathing of vapours. Select and use respirators in accordance with AS/NZS 1715/1716. The use of a half-face respirator fitted with an acid gas cartridge with replaceable filters is recommended. Filter capacity and respirator type depends on exposure levels and type of contaminant. If entering spaces where the airborne concentration of a contaminant is unknown then the use of a Self-contained breathing apparatus (SCBA) with positive pressure air supply complying with AS/NZS 1715 / 1716, or any other acceptable International Standard is recommended.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Clear to yellowish coloured liquid with chlorine-like odour
<b>Boiling Point:</b>	40°C (decomposes)
<b>Melting Point:</b>	-6°C
<b>Vapour Pressure:</b>	17.5 mmHg @ 20°C
<b>Specific Gravity:</b>	1.07 - 1.14
<b>Flash Point:</b>	Not applicable, water content interferes with flash point.
<b>Flammability Limits:</b>	Not applicable
<b>Solubility in Water:</b>	Completely soluble

#### Other Properties

**pH:** 9 - 10

### 10. STABILITY AND REACTIVITY

**Chemical Stability:** Slowly decomposes on contact with air. Rate increases with the concentration and temperature. Exposure to sunlight accelerates decomposition. Sodium hypochlorite becomes less toxic with age.

**Conditions to Avoid:** Light, heat, incompatibles.

**Incompatible Materials:** Ammonia (chloramine gas may evolve), amines, ammonium salts, aziridine, methanol, phenyl acetonitrile, cellulose, ethyleneimine, oxidizable metals, acids, soaps, and bisulfates.

**Hazardous Decomposition Products:** Decomposes on heating emitting toxic fumes of chlorine and sodium oxide at high temperatures.

**Hazardous Reactions:** Will not occur.

# Material Safety Data Sheet

## Cleaning Solution 1

### 11. TOXICOLOGICAL INFORMATION

No adverse health effects are expected, if the product is handled in accordance with this Material Safety Data Sheet and the product label. Symptoms and effects that may arise if the product is mishandled or overexposure occurs are:

#### Acute Health Effects

**Swallowed:** May cause irritation to mouth, throat and stomach with effects including mucous build up, irritation to the tongue and lips and pains in the stomach, which may lead to nausea, vomiting and diarrhoea.

**Eye:** Will cause severe irritation to the eyes with effects including: tearing, pain, stinging and blurred vision.

**Skin:** Will cause irritation to the skin, with effects including; redness and itchiness and drying/defatting

**Inhaled:** May cause irritation to the nose, throat and respiratory system, with effects including: cough, discomfort, difficulty breathing and shortness of breath.

**Chronic:** Prolonged or repeated skin contact may lead to dermatitis. Prolonged contact may cause severe eye irritation and some form of permanent eye damage may occur.

### 12. ECOLOGICAL INFORMATION

No ecological information available for this product. Do not dispose of large quantities to waterways, drains or sewers.

### 13. DISPOSAL CONSIDERATIONS

Refer to appropriate authority in your State. Dispose of material through a licensed waste contractor. Advise of corrosive nature. If large amounts of the product enter waterways, sewers or streams, immediately contact the Environmental Protection Agency or your Local Waste Management Authority.

### 14. TRANSPORT INFORMATION

#### Road Transport

**UN Number:** 1791

**Proper Shipping Name:** HYPOCHLORITE SOLUTION (Contains SODIUM HYPOCHLORITE SOLUTION)

**Dangerous Goods Class:** 8

**Packing Group:** III

**Label:** Irritant (Xi)

#### Air Transport

**UN Number:** 1791

**Proper Shipping Name:** HYPOCHLORITE SOLUTION(Contains SODIUM HYPOCHLORITE SOLUTION)

**Dangerous Goods Class:** 8

**Packing Group:** III

**Label:** Irritant (Xi)

#### Sea Transport

**UN Number:** 1791

**Proper Shipping Name:** HYPOCHLORITE SOLUTION(Contains SODIUM HYPOCHLORITE SOLUTION)

**Dangerous Goods Class:** 8

**Packing Group:** III

**Label:** Irritant (Xi)

# Material Safety Data Sheet

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### 15. REGULATORY INFORMATION

**Poison Schedule:** S5 [Aust]

This material is a Scheduled (S5) Poison and must be stored, handled and used according to the appropriate regulations.

**Inventory Status:**

Australia (AICS)	Y
United States (TSCA)	Y
Canada (DSL)	Y
Europe (EINECS/ELINCS)	Y

Y = all ingredients are on the inventory.

### 16. OTHER INFORMATION

Issue date: March, 2005

**Key Legend Information**

NOHSC - National Occupational Health & Safety Commission [Aust]

SUSDP - Standard for the Uniform Scheduling of Drugs and Poisons {Poison Schedule} [Aust]

TWA - Time Weighted Average [Int]

STEL - Short Term Exposure Limit [Int]

AICS - Australian Inventory of Chemical Substances [Aust]

EPA - Environmental Protection Agency [Int]

NIOSH - National Institute for Occupational Safety and Health [US]

AS/NZS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. [Aust]

AS/NZS 1716 - Respiratory Protective Devices. [Aust]

Hazchem Code - Fire Fighter Designation [Aust]

IATA - International Aviation Transport Authority [Int]

ICAO - International Civil Aviation Organization [Int]

IMO - International Maritime Organisation. [Int]

IMDG - International Maritime Dangerous Goods [Int]

United Nations Recommendations for the Transport of Dangerous Goods and Globally Harmonized System for the Classification and Labeling of Chemicals. [Int]

EU - European Union

TSCA - Toxic Substances Control Act [US]

DSL - Domestic Chemical List [Can]

EINECS - European Inventory of Existing Commercial Chemical Substances [Int]

ELINCS - Existing List of Notified Chemical Substances. [Int]

[Aust] = Australia

[Int] = International

[US] = United States of America

[Can] = Canada

**Principal References:**

Information supplied by manufacturer, reference sources including the public domain.

**Disclaimer**

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

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**END OF MSDS**