



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

Product Name: Thermoflush
Company: Donaghys Ltd
Address: 16 Sheffield Crescent
PO Box 20 449
Christchurch
Telephone Number: 0800 942 006
Manufacturer Product Code: ATF0200
Recommended Use: Acid milkstone and scale remover.

Section 2 – Hazard Identification

GHS Classifications: Acute oral toxicity Category 4
Corrosive to metals Category 1
Skin corrosion Category 1C
Serious eye damage Category 1
Hazardous to the aquatic environment chronic Category 4
Hazardous to terrestrial vertebrates

GHS Pictograms:



Hazard Statements: H302 Harmful if swallowed
H290 May be corrosive to metals
H314 Causes severe skin burns and eye damage
H318 Causes serious eye damage
H413 May cause long lasting harmful effects to aquatic life
H433 Harmful to terrestrial vertebrates

Prevention Statements: P102 Keep out of reach of children
P103 Read label before use
P234 Keep only in original container
P260 Do not breathe dust/fume/gas/mist/vapours/spray
P264 Wash hands thoroughly after handling
P270 Do not eat, drink or smoke when using this product
P273 Avoid release to the environment
P280 Wear protective gloves/protective clothing/eye protection/face protection

Response Statements: P101 If medical advice is needed, have product container or label at hand.
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P330 Rinse mouth.
P390 Absorb spillage to prevent material damage.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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Response Statements: (Continued)	P363	Wash contaminated clothing before reuse.
	P304 + P340	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
	P310	Immediately call a POISON CENTER or doctor/physician.
	P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P310	Immediately call a POISON CENTER or doctor/physician.
Storage:	P405	Store locked up
	P406	Store in corrosive resistant/container with a resistant inner liner
Signal Word:	DANGER	
EPA NZ Approval Code:	HSR002526 Cleaning Products (Corrosive) Group Standard	

Section 3 – Composition Information

Chemical Entity	CAS No.	Content [%]
Phosphoric Acid	7664-38-2	10-30%
Glycolic Acid	79-14-1	1-10%
Dodecyl Di (Amino Ethyl) Glycine	6843-97-6	1-10%

Section 4 – First Aid Measures

If Swallowed:	Harmful if swallowed. Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTRE or doctor/physician. If medical advice is needed, have product container or label at hand.
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:	Remove immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of soap and water. Wash contaminated clothing before re-use. If irritation persists, contact 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 carbon monoxide (CO). May emit acrid smoke and toxic fumes. Other decomposition products include phosphorus oxides (POx), chlorides and nitrogen oxides (NOx)
Flammability Limits:	Not applicable
Protective Equipment:	Breathing apparatus, face shield or protective goggles, and neoprene rubber gloves and boots
Extinguishing Media:	Based on surrounding materials
Special Fire Fighting Methods:	None

Section 6 – Accidental Release Measures

Spills and Disposal:	<p>MAJOR SPILLS Slippery when spilt. Minor hazard. 1: Clear area of personnel. 2: Alert Fire Brigade and tell them location and nature of hazard. 3: Control personal contact by using protective equipment as required. 4: Prevent spillage from entering drains or waterways. 5: Contain spill with sand, earth or vermiculite. 6: Collect recoverable product into labelled containers for recycling. 7: Absorb remaining product with sand, earth or vermiculite to prevent material damage and place in appropriate containers for disposal. 8: Wash area and prevent runoff into drains or waterways. 9: If contamination of drains or waterways occurs, advise emergency services.</p> <p>Minor Spills: Slippery when spilt. 1: Clean up all spills immediately. 2: Avoid breathing vapours and contact with skin and eyes. 3: Control personal contact by using protective equipment. 4: Contain and absorb spill with sand, earth, inert material or vermiculite. 5: Wipe up. 6: Place in a suitable labelled container for waste disposal.</p> <p>Disposal: 1: Recycle wherever possible or consult manufacturer for recycling options. 2: Consult State Land Waste Management Authority for disposal. 3: Treat and neutralise with slaked lime at an effluent treatment plant. 4: Recycle containers, otherwise dispose of in an authorised landfill.</p>
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- 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. Absorb spillage to prevent material damage.

Section 7– Handling and Storage

- Storage:** **SUITABLE CONTAINER**
Polyethylene or polypropylene container.
Store in corrosive resistant/container with a resistant inner liner.
Plastic carboy Plastic drum Polyliner drum
Check all containers are clearly labelled and free from leaks.
- STORAGE INCOMPATIBILITY**
Segregate from alkalis, oxidising agents and chemicals readily decomposed by acids, i.e. cyanides, sulfides, carbonates.
- STORAGE REQUIREMENTS**
- 1: Store in locked up in original containers.
 - 2: Keep containers securely sealed.
 - 3: Store in a cool, dry, well-ventilated area.
 - 4: Store away from incompatible materials and foodstuff containers.
 - 5: Protect containers against physical damage and check regularly for leaks.
 - 6: Observe storing and handling recommendations on label.
- 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. Absorb spillage to prevent material damage.

Section 8 – Exposure Controls/Personal Protection

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

- Exposure Limits:** None assigned. Refer to individual constituents.
<phosphoric acid>
TLV TWA: 1 mg/m³; STEL: 3 mg/m³
ES TWA: 1 mg/m³; STEL: 3 mg/m³
OES STEL: 2 mg/m³
IDLH Level: 1000 mg/m³
- Protective Equipment:** Observe good workplace practices and avoid contact with skin and eyes. Wear overalls, safety glasses and neoprene gloves when handling. Wear eye / face protection. In case of inadequate ventilation wear respiratory protection.
- Hygiene Precautions:** Do not eat, drink or smoke when using this product.
- Engineering Controls:** General exhaust is adequate under normal operating conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas.

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Section 9 – Physical and Chemical Properties

Appearance:	Purple liquid
Odour:	Acidic odour
Specific Gravity:	1.4
pH:	N/Av
Vapour Pressure:	N/Av
Flash Point:	N/App
Autoignition Temperature:	N/App
Flammability Limits:	N/App
Solubility:	Soluble in water

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:	Alkali (basic) chemicals, natural rubber
Hazardous Decomposition Products:	None

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:	The concentrate is slightly toxic, harmful if swallowed and is capable of causing burns to mouth, throat, oesophagus, with extreme discomfort, pain and nausea. Breathing will be difficult, and acidosis, convulsions and collapse may occur. Considered an unlikely route of entry in commercial/industrial environments.
Inhalation:	The vapour/mist is slightly toxic and highly discomforting to the upper respiratory tract and may cause breathing difficulty. Exposure to high concentrations causes bronchitis and is characterised by the onset of haemorrhagic pulmonary oedema.
Dermal:	The concentrate is highly discomforting to the skin and is capable of causing skin reactions which may lead to dermatitis and may cause skin sensitisation and burns if exposure is prolonged. Bare unprotected skin should not be exposed to this material. The material may produce severe 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 (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. Prolonged contact is unlikely, given the severity of response, but repeated exposures may produce severe ulceration.
Ocular:	The concentrate is corrosive to the eyes and is capable of causing burns if exposure is prolonged. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.



Chronic Effects: No significant health effects could be found. This material is not considered to be a carcinogen or mutagen, and no reproductive effects have been identified.

Section 12 - Ecological Information

ERMA Classification: May cause long lasting harmful effects to aquatic life. Harmful to terrestrial vertebrates.

Ecotoxicity: May be harmful to aquatic life. Harmful to terrestrial invertebrates

Bioaccumulation: Product contains bioaccumulative and ecologically persistent ingredients

Section 13 – Disposal Considerations

Product and Container 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: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
(Contains Phosphoric Acid & Glycolic Acid)

UN Number: 3264

DG Class: 8

Subsidiary Risk Class: None

Packing Group: III

HAZCHEM Code: 2X

Section 15 – Regulatory Information

EPA NZ Registration Code: HSR002526
See <http://www.epa.govt.nz> for approval conditions

NZFSA Approval Number: H1030

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)

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