

## Section 1 – Identification of Chemical Product and Company

Code	Description	Size	Colour
	Chemical Stain		Walnut
Recommended use:		Concrete Stain	
Supplier contact details:	New Zealand Decorative Concrete Ltd T/A	Freephone: 0508 444 555	
	42A Egmont Road,	Phone: 06 755 3320	
	Waiwhakaiho	Fax: N/A	
	New Plymouth	Email: info@permacolour.co.nz	
	New Zealand	Website: www.permacolour.co.nz	
POISON CENTRE NUMBER: 0800 764 766 (24 hours)			

## Section 2 – Hazard Identification

### Statement of Hazardous Nature

This product is classified as:

**HAZARDOUS SUBSTANCE** according to the criteria of HSNO.

**REGULATED** under NZS5433:2007 Transport of Dangerous Goods on Land

### Hazardous Substances and New Organisms (HSNO) classification:

Classification	Hazard statements
<b>Acute Oral Toxicity Category 2</b> <b>6.1C</b>	H301 Toxic if swallowed
<b>Skin Effects Category 1C</b> <b>8.2C</b>	H314 Causes severe skin burns and eye damage
<b>Eye Effects Category 1</b> <b>8.3A</b>	H318 Causes serious eye damage
<b>Respiratory Sensitisation Category 1</b> <b>6.5A</b>	H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
<b>Skin Sensitisation Category 1</b> <b>6.5B</b>	H317 May cause an allergic skin reaction
<b>Mutagenicity Category 1</b> <b>6.6A</b>	H340 May cause genetic defects
<b>Carcinogenicity Category 1</b> <b>6.7A</b>	H350 May cause cancer
<b>Reproductive Toxicity Category 1</b> <b>6.8A</b>	H360 May damage fertility or the unborn child
<b>STOT – SE Category 1</b> <b>6.9A</b>	H370 Causes damage to organs
<b>STOT – RE Category 1</b> <b>6.9A</b>	H372 Causes damage to organs through prolonged or repeated exposure
<b>Chronic Aquatic Hazard Category 2</b> <b>9.1B</b>	H411 Toxic to aquatic effects with long lasting effects
<b>Terrestrial Hazard Category 3</b> <b>9.2C</b>	H423 Harmful to the soil environment
<b>Vertebrate Hazard Category 2</b> <b>9.3B</b>	H432 Toxic to terrestrial Vertebrates

**HSNO Signal Word:**

**DANGER**



**Precautionary Statements:**

Keep out of reach of Children	P281	Use personal protective equipment as required
Do not handle until all safety precautions have been read and understood	P234	Keep in original packaging
	P270	Do not eat, drink or smoke whilst handling this product
P260 Do not breathe mists/ vapours/ sprays	P273	Avoid release to the environment
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection	P405	Store locked up
P284 In case of inadequate ventilation wear respiratory protection	P501	Dispose of contents. Container in accordance with local regulations
P220 Keep away from clothing and other combustible materials		
P272 Contaminated work clothing should not be allowed out of the workplace		

**Section 3 - Composition/Information on Ingredients**

Ingredient	CAS No.	Individual HSNO classification	Concentration (% by Wt.)
Sodium dichromate	10588-01-9	Oxidising Solid Category 2; Acute Oral Toxicity Category 2; Acute Dermal Toxicity Category 3; Acute Inhalation Toxicity Category 1; Skin Effects Category 1C; Eye Effects Category 1; Respiratory Sensitisation Category 1; Skin Sensitisation Category 1; Mutagenicity Category 1; Carcinogenicity Category 1; Reproductive Toxicity Category 1; STOT – RE Category 1; STOT – SE Category 1; Acute Aquatic Hazard Category 1; Chronic Aquatic Hazard Category 1; Terrestrial Hazard Category 2; Vertebrate Hazard Category 1	1 – 10
Hydrochloric acid	7647-01-0	Metallic Corrosivity Category 1; Acute Oral Toxicity Category 4; Acute Dermal Toxicity Category 4; Acute Inhalation Toxicity Category 2; Skin Effects Category 1B; Eye Effects Category 1; Chronic Aquatic Hazard Category 2; Vertebrate Hazard Category 3	1 – 10
Manganese sulphate, monohydrate	10034-96-5	Acute Oral Toxicity Category 4; Acute Dermal Toxicity Category 4; STOT – SE Category 1; STOT – RE Category 1; Chronic Aquatic Hazard Category 2	1 -10
Ingredients not contributing to classification			balance

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non-hazardous ingredients are also possible.

**Section 4 – First Aid Measures**

**NZ Poisons Centre 0800 POISON (0800 764 766) | NZ Emergency Services: 111**

**Eye contact:**

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. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

**Skin contact:**

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.

**Inhalation:**

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. Transport to hospital, or doctor, without delay. 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. This must definitely be left to a doctor or person authorised by him/her.

**Ingestion:**

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. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Transport to hospital or doctor without delay.

**General advice and advice for physicians:**

Treat symptomatically.

## Section 5 - Fire-Fighting Measures

**Extinguishing media:**

Water spray or fog. Foam. Dry chemical powder. Carbon dioxide.

**Fire/ Explosion Hazard**

The product contains a substantial proportion of water, Though the material is non-combustible, evaporation of water from the mixture, caused by the heat of nearby fire, may produce floating layers of combustible substances. Acids may react with metals to produce hydrogen, a highly flammable and explosive gas. Heating may cause expansion or decomposition leading to violent rupture of containers. May emit corrosive, poisonous fumes. May emit acrid smoke.

**Advice for fire-fighters:**

Alert Fire & Emergency New Zealand and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves in the event of a fire. Prevent, by any means available, spillage from entering drains or water courses. Use firefighting 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.

## Section 6 - Accidental Release Measures

**Minor Spills**

Environmental hazard - contain spillage. 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 with the substance, by using protective equipment. Contain and absorb spill with sand, earth, inert material or vermiculite. Wipe up. Place in a suitable, labelled container for waste disposal.

**Major Spills**

Environmental hazard - contain spillage. Clear area of personnel and move upwind. Alert Fire & Emergency New Zealand 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 course. No smoking, naked lights or ignition sources. Increase ventilation. Stop leak if safe to do so. Water spray or fog may be used to disperse / absorb vapour. Contain or absorb spill with sand, earth or vermiculite. Use only spark-free shovels and explosion proof equipment. Collect recoverable product into labelled containers for recycling. Collect solid residues and seal in labelled drums for disposal. Wash area and prevent runoff into drains. After clean-up operations, decontaminate and launder all protective clothing and equipment before storing and re-using. If contamination of drains or waterways occurs, advise emergency services.

## Section 7 - Handling and Storage

### Handling:

Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps. DO NOT enter confined spaces until atmosphere has been checked. DO NOT allow material to contact humans, exposed food or food utensils. Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. Keep containers securely sealed when not in use. Avoid physical damage to containers. Always wash hands with soap and water after handling. Work clothes should be laundered separately. Launder contaminated clothing before re-use. Use good occupational work practice. Observe manufacturer's storage and handling recommendations contained within this SDS. Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

### Storage:

Store in original containers. Keep containers securely sealed. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storage and handling recommendations contained within this SDS. DO NOT use aluminium or galvanised containers. Check regularly for spills and leaks. Lined metal can, lined metal pail/ can. Plastic pail. Polyliner drum. Packing as recommended by manufacturer. Check all containers are clearly labelled and free from leaks. 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.

## Section 8 - Exposure Controls/Personal Protection

### Exposure limits:

CAS no.	Substance or ingredient	WES-TWA	WES-STEL
10034-96-5	Manganese sulphate, monohydrate	0.2 mg/m <sup>3</sup>	

The TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.






### Engineering Controls:

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure. Employees exposed to confirmed human carcinogens should be authorized to do so by the employer, and work in a regulated area. Work should be undertaken in an isolated system such as a "glove-box". Employees should wash their hands and arms upon completion of the assigned task and before engaging in other activities not associated with the isolated system. Within regulated areas, the carcinogen should be stored in sealed containers, or enclosed in a closed system, including piping systems, with any sample ports or openings closed while the carcinogens are contained within. Open-vessel systems are prohibited.

Each operation should be provided with continuous local exhaust ventilation so that air movement is always from ordinary work areas to the operation. Exhaust air should not be discharged to regulated areas, non-regulated areas or the external environment unless decontaminated. Clean make-up air should be introduced in sufficient volume to maintain correct operation of the local exhaust system. For maintenance and decontamination activities, authorized employees entering the area should be provided with and required to wear clean, impervious garments, including gloves, boots and continuous-air supplied hood. Prior to removing protective garments the employee should undergo decontamination and be required to shower upon removal of the garments and hood. Except for outdoor systems, regulated areas should be maintained under negative pressure (with respect to non-regulated areas). Local exhaust ventilation requires make-up air be supplied in equal volumes to replaced air. Laboratory hoods must be designed and maintained so as to draw air inward at an average linear face velocity of 0.76 m/sec with a minimum of 0.64 m/sec. Design and construction of the fume hood requires that insertion of any portion of the employees body, other than hands and arms, be disallowed.

### Exposure controls:

Control	Protective measure
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 lenses 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], [AS/NZS 1336 or national equivalent]	
<b>Respiratory</b>	Type B-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)	
<b>Skin</b>	Butyl or Neoprene Avoid skin contact. If skin contact or contamination of clothing is likely, protective clothing should be worn. [AS 2161] Wear protective clothing.	  

## Section 9 - Physical and Chemical Properties

### General substance properties:

Property	Details
<b>Appearance</b>	Liquid
<b>Odour</b>	Characteristic
<b>pH</b>	< 1
<b>Vapour pressure</b>	No data
<b>Vapour Density</b>	> 1 heavier than air
<b>Viscosity</b>	1.004 cSt
<b>Boiling Point</b>	102 °C
<b>Volatile materials</b>	70 %
<b>Water solubility</b>	miscible
<b>Freezing/melting point</b>	0 °C
<b>Specific gravity/density</b>	1.09 g/ml
<b>Flash point</b>	No data
<b>Auto-ignition temperature</b>	No data
<b>Upper and lower flammability limits</b>	Lower % Upper %
<b>Corrosiveness</b>	Corrosive to metals/ skin/ eyes

## Section 10 - Stability and Reactivity

### Stability:

Stable under normal conditions.

### Conditions to avoid:

Metal containers, acids

### Incompatible materials to avoid:

Avoid oxidising agents (nitrates, oxidising acids, chlorine bleaches, pool chlorine etc) as ignition may result

### Hazardous decomposition products:

Combustion products include: carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>), sulphur oxides (SO<sub>x</sub>), hydrogen chloride (HCl) other pyrolysis products typical of burning organic material.

## Section 11 - Toxicological Information

### Summary of Toxicity

Test	Data and symptoms of exposure
<b>Inhaled</b>	There is strong evidence to suggest that this material can cause, if inhaled once, very serious, irreversible damage of organs. The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Not normally a hazard due to non-volatile nature of product The material has NOT been classified by EC Directives or other classification systems as "harmful by inhalation". This is because of the lack of corroborating animal or human evidence. Corrosive acids can cause irritation of the respiratory tract, with coughing, choking and mucous membrane damage. There may be dizziness, headache, nausea and weakness.
<b>Oral</b>	The material can produce chemical burns within the oral cavity and gastrointestinal tract following ingestion. There is strong evidence to suggest that this material can cause, if swallowed once, very serious, irreversible damage of organs. The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. Ingestion of acidic corrosives may produce burns around and in the mouth, the throat and oesophagus. Immediate pain and difficulties in swallowing and speaking may also be evident. Poisonings rarely occur after oral administration of manganese salts because they are poorly absorbed from the gut.
<b>Dermal</b>	The material can produce chemical burns following direct contact with the skin. There is strong evidence to suggest that this material, on a single contact with skin, can cause very serious, irreversible damage of organs. Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. Skin contact with acidic corrosives may result in pain and burns; these may be deep with distinct edges and may heal slowly with the formation of scar tissue. Open cuts abraded or irritated skin should not be exposed to this material Entry into the bloodstream, through for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
<b>Eye</b>	The material can produce chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating. If applied to the eyes, this material causes severe eye damage. Irritation of the eyes may produce a heavy secretion of tears (lachrymation). Direct eye contact with acid corrosives may produce pain, tears, sensitivity to light and burns. Mild burns of the epithelia generally recover rapidly and completely.
<b>Chronic</b>	Repeated or long-term occupational exposure is likely to produce cumulative health effects involving organs or biochemical systems. Long-term exposure to respiratory irritants may result in airways disease, involving difficulty breathing and related whole-body problems. Inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. There is ample evidence that this material can be regarded as being able to cause cancer in humans based on experiments and other information. There is ample evidence to presume that exposure to this material can cause genetic defects that can be inherited. Based on experiments and other information, there is ample evidence to presume that exposure to this material can cause genetic defects that can be inherited. Ample evidence exists that this material directly causes reduced fertility Repeated or prolonged exposure to acids may result in the erosion of teeth, swelling and/or ulceration of mouth lining. Irritation of airways to lung, with cough, and inflammation of lung tissue often occurs. Manganese is an essential trace element. Chronic exposure to low levels of manganese can include a mask-like facial expression, spastic gait, tremors, slurred speech, disordered muscle tone, fatigue, anorexia, loss of strength and energy, apathy and poor concentration. Chronic minor exposure to hydrogen chloride (HCl) vapour or fume may cause discolouration or erosion of the teeth, bleeding of the nose and gums; and ulceration of the mucous membranes of the nose. Workers exposed to hydrochloric acid suffered from stomach inflammation and a number of cases of chronic bronchitis (airway inflammation) have also been reported. Repeated or prolonged exposure to dilute solutions of hydrogen chloride may cause skin inflammation.

Ingredient	Oral LD <sub>50</sub>	Dermal LD <sub>50</sub>	Inhalation LC <sub>50</sub>
Hydrochloric acid	700 mg/kg	5010 mg/kg	780.1 mg/L/1hr



## Section 12 - Ecological Information

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites. Ecotoxicity: The tolerance of water organisms towards pH margin and variation is diverse. Recommended pH values for test species listed in OECD guidelines are between 6.0 and almost 9. Acute testing with fish showed 96h-LC50 at about pH 3.5 Prevent, by any means available, spillage from entering drains or water courses. DO NOT discharge into sewer or waterways.

Ingredient	Fish	Crustacea	Algae
Sodium dichromate	LC <sub>50</sub> 96hr 4 mg/L BCF 17520hr 0.00025 mg/L	EC <sub>50</sub> 48hr 0.112 mg/L NOEC <sub>336hr</sub> 0.0005 mg/L	
Hydrochloric acid	LC <sub>50</sub> 96hr 70.05 mg/L NOEC <sub>504hr</sub> 10 mg/L		EC <sub>50</sub> 96hr 344.947 mg/L
Manganese sulphate monohydrate	LC <sub>50</sub> 96hr 3.17 mg/L NOEC <sub>840h</sub> 0.004 mg/L EC <sub>10</sub> 840hr 0.004 mg/L	EC <sub>50</sub> 48hr 8.28 mg/L	EC <sub>50</sub> 96hr 61 mg/L BCF <sub>840h</sub> 5 mg/L

	Persistence H <sub>2</sub> O/ Soil	Persistence Air	Bioaccumulation	Mobility
Hydrochloric acid	LOW	LOW	LOW	LOW

## Section 13 - Disposal Considerations

Containers may still present a chemical hazard/ danger when empty. Return to supplier for reuse/ recycling if possible. Otherwise: If container cannot be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. Where possible retain label warnings and SDS and observe all notices pertaining to the product. DO NOT allow wash water from cleaning or process equipment to enter drains. It may be necessary to collect all wash water for treatment before disposal. In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. Where in doubt contact the responsible authority. Recycle wherever possible or consult manufacturer for recycling options. Consult Land Waste Authority for disposal. Bury or incinerate residue at an approved site. Packages that have been in direct contact with the hazardous substance must be only disposed if the hazardous substance was appropriately removed and cleaned out from the package. The package must be disposed according to the manufacturer's directions taking into account the material it is made of. Packages which hazardous content have been appropriately treated and removed may be recycled. The hazardous substance must only be disposed if it has been treated by a method that changed the characteristics or composition of the substance and it is no longer hazardous. Only dispose to the environment if a tolerable exposure limit has been set for the substance. Only deposit the hazardous substance into or onto a landfill or sewage facility or incinerator, where the hazardous substance can be handled and treated appropriately. Ensure that the hazardous substance is disposed in accordance with the Hazardous Substances (Disposal) Notice 2017

## Section 14 - Transport Information



HAZCHEM 2X

### Land Transport UNDG

Class or division 8  
 Subsidiary Risk 6.1  
 UN Number 2922  
 UN Packing Group III  
 Shipping Name **CORROSIVE LIQUID, TOXIC, N.O.S.** contains sodium dichromate, hydrochloric acid)  
 Special Provisions 223 274  
 Limited Quantities 5 L

### Air Transport IATA

ICAO/IATA Class 8

ICAO/IATA Subrisk 6.1  
UN/ID Number **2922**  
Packing Group III  
Special provision A3 A803  
Cargo only  
Packing instructions 856  
Maximum Qty/pack 60 L  
Passenger and Cargo  
Packing instructions 852  
Maximum Qty/pack 5 L  
Passenger & Cargo Limited Quantity  
Packing instructions Y841  
Maximum Qty/pack 1 L  
Shipping Name **CORROSIVE LIQUID, TOXIC, N.O.S.** contains sodium dichromate, hydrochloric acid)

#### Marine Transport IMDG

IMDG Class 8  
IMDG Subrisk 6.1  
UN Number **2922**  
UN Packing Group III  
EmS Number F-A S-B  
Special provisions 223 274  
Limited quantities 5 L  
Marine pollutant Yes  
Shipping Name **CORROSIVE LIQUID, TOXIC, N.O.S.** contains sodium dichromate, hydrochloric acid)

## Section 15 - Regulatory Information

#### HSNO approval number and Group Standard:

HSR002673 Surface Coatings & Colourants (Toxic [6.1+6.7], Corrosive)

#### Group Standard conditions and other regulations:

Condition	Requirement
<b>SDS</b>	Safety data sheet must be available to a person handling the substance within 10 minutes.
<b>Emergency plan</b>	Required when quantities exceed 100 Lt
<b>Certified handler</b>	Not required
<b>Tracking</b>	Not Required. Not to be sold to non-workplaces
<b>Bunding and secondary containment</b>	Required
<b>Signage</b>	Required when present in quantity 500 L.
<b>Location Compliance Certificate</b>	Not required
<b>Hazardous Atmosphere zone</b>	Not applicable
<b>Fire extinguisher</b>	Not required

#### National Inventories

Australia	AICS	Y
Canada	DSL	Y
Canada	NDSL	N
China	IECSC	Y
Europe	EINEC/ELINCS/NLP	Y



Japan	ENCS	Y
Korea	KECI	Y
New Zealand	NZIOC	Y
Philippines	PICCS	Y
USA	TSCA	Y
Taiwan	TCSI	Y
Mexico	INSQ	Y
Vietnam	NCI	Y
Russia	ARIPS	Y
Thailand	TECI	Y

## Section 16 – Other Information

### Revision History

August 2019

origination

### Abbreviations:

Abbreviation	Description
CAS number	Number assigned to chemical in the Chemical Abstracts Service registry
HAZCHEM code	Code used by fire-fighters to determine correct method of action in the case of fire
HSNO	Hazardous Substances and New Organisms (Act)
ICAO Technical Instructions	International Civil Aviation Organization Technical Instructions
IMDG code	International Maritime Dangerous Goods code controlled by the International Maritime Organization (IMO)
LC <sub>50</sub>	Lethal concentration 50% - concentration fatal to 50% of the tested population
LD <sub>50</sub>	Lethal dose 50% - dose fatal to 50% of the tested population
NZS 5433	New Zealand Standard 5433 (Standard for the Transport of Dangerous Goods on Land)
SDS	Safety data sheet
STEL	Short term exposure limit
TWA	Time weighted average (typically measured as 8 hours)
UN number	United nations number
WES	Workplace exposure standard

### References

Chemical properties and HSNO classifications derived from the New Zealand chemical classification information database (CCID). [www.epa.govt.nz](http://www.epa.govt.nz).  
Workplace exposure limits derived from Workplace Exposure Standards and Biological Exposure Indices 9th Edition.

***The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material in combination with any other material or in any process, unless specified in the text.***

This SDS was prepared by Collievale Enterprises Ltd in accord with the Hazardous Substances (Safety Data Sheets) Notice 2017  
<http://www.collievale.com> Phone +64 7 5432428

**End of MSDS**