

Section 1 – Identification of Chemical Product and Company

Code	Description	Size	Colour
	Chemical Stain		Turquoise
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
Acute Oral Toxicity Category 4 6.1D	H302 Harmful if swallowed
Skin Effects Category 2 6.3A	H315 Causes skin irritation
Eye Effects Category 2 6.4A	H319 Causes serious eye irritation
Skin Sensitisation Category 1 6.5B	H317 May cause an allergic skin reaction
STOT – SE Category 2 6.9B	H371 Suspected of damaging organs
STOT – RE Category 2 6.9B	H373 Suspected of damaging organs through prolonged or repeated exposure
Acute Aquatic Hazard Category 1 9.1A	H400 Very toxic to aquatic life
Vertebrate Hazard Category 2 9.3B	H432 Toxic to terrestrial Vertebrates

HSNO Signal Word:



WARNING

Precautionary Statements:

Keep out of reach of Children	P272	Contaminated work clothing should not be allowed out of the workplace
Do not handle until all safety precautions have been read and understood	P273	Avoid release to the environment
P260 Do not breathe mists/ vapours/ sprays	P405	Store locked up
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection	P501	Dispose of contents. Container in accordance with local regulations
P270 Do not eat, drink or smoke whilst handling this product		

Section 3 - Composition/Information on Ingredients

Ingredient	CAS No.	Individual HSNO classification	Concentration (% by Wt.)
Copper sulphate	7758-99-8	Acute Oral Toxicity Category 4; Skin Effects Category 2; Eye Effects Category 2; Skin Sensitisation Category 1; STOT – SE Category 2; STOT – RE Category 2; Acute Aquatic Hazard Category 1; Vertebrate Hazard Category 2	30 – 40
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
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:

Wash out immediately with fresh 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. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

Skin contact:

Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.

Inhalation:

Remove from contaminated area. Other measures are usually unnecessary.

Ingestion:

IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY. For advice, contact a Poisons Information Centre or a doctor. Urgent hospital treatment is likely to be needed. In the meantime, qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient's condition. If the services of a medical officer or medical doctor are readily available, the patient should be placed in his/her care and a copy of the SDS should be provided. Further action will be the responsibility of the medical specialist. If medical attention is not available on the worksite or surroundings send the patient to a hospital together with a copy of the SDS.

General advice and advice for physicians:

Treat symptomatically.

Section 5 - Fire-Fighting Measures

Extinguishing media:

Foam, Carbon Dioxide, Dry Powder

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. Not considered to be a significant fire risk. 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 acid 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. 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 breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water course. Stop leak if safe to do so. Contain spill with sand, earth or vermiculite. Collect recoverable product into labelled containers for recycling. Neutralise/decontaminate residue (see Section 13 for specific agent). 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. Avoid contact with moisture. 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. DO NOT allow clothing wet with material to stay in contact with skin

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

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. Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection. An approved self contained breathing apparatus (SCBA) may be required in some situations. Provide adequate ventilation in warehouse or closed storage area. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Exposure controls:

Control	Protective measure
Eye	Safety glasses, 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] 
Respiratory	Type B-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent) 
Skin	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
Appearance	Liquid
Odour	Characteristic
Ph	< 1
Vapour pressure	No data
Vapour Density	> 1 heavier than air
Viscosity	1.004 cSt
Boiling Point	102 °C
Volatile materials	67 %
Water solubility	miscible
Freezing/melting point	0 °C
Specific gravity/density	1.19 g/ml
Flash point	No data
Auto-ignition temperature	No data
Upper and lower flammability limits	Lower % Upper %
Corrosiveness	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 (CO₂) other pyrolysis products typical of burning organic material.

Section 11 - Toxicological Information

Summary of Toxicity

Test	Data and symptoms of exposure
Inhaled	The material is not thought to produce either adverse health effects or irritation of the respiratory tract following inhalation (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Levels above 10 micrograms per cubic metre of suspended inorganic sulfates in the air may cause an excess risk of asthmatic attacks in susceptible people. Not normally a hazard due to non-volatile nature of product Copper poisoning following exposure to copper dusts and fume may result in headache, cold sweat and weak pulse. Capillary, kidney, liver and brain damage are the longer term manifestations of such poisoning. Inhalation of freshly formed metal oxide particles sized below 1.5 microns and generally between 0.02 to 0.05 microns may result in "metal fume fever". Symptoms may be delayed for up to 12 hours and begin with the sudden onset of thirst, and a sweet, metallic or foul taste in the mouth. Other symptoms include upper respiratory tract irritation accompanied by coughing and a dryness of the mucous membranes, lassitude and a generalised feeling of malaise. Mild to severe headache, nausea, occasional vomiting, fever or chills, exaggerated mental activity, profuse sweating, diarrhoea, excessive urination and prostration may also occur. Tolerance to the fumes develops rapidly, but is quickly lost. All symptoms usually subside within 24-36 hours following removal from exposure. Inhalation of dusts, generated by the material during the course of normal handling, may be damaging to the health of the individual.
Oral	Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual. Sulfates are not well absorbed orally, but can cause diarrhoea. A metallic taste, nausea, vomiting and burning feeling in the upper stomach region occur after ingestion of copper and its derivatives. The vomitus is usually green/blue and discolours contaminated skin.
Dermal	This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition Exposure to copper, by skin, has come from its use in pigments, ointments, ornaments, jewellery, dental amalgams and IUDs (intra-uterine devices), and in killing fungi and algae. Although copper is used in the treatment of water in swimming pools and reservoirs, there are no reports of toxicity from these applications. 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.
Eye	This material can cause eye irritation and damage in some persons. Copper salts, in contact with the eye, may produce inflammation of the conjunctiva, or even ulceration and cloudiness of the cornea.
Chronic	Repeated or long-term occupational exposure is likely to produce cumulative health effects involving organs or biochemical systems. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed. This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects. 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 ₅₀	Dermal LD ₅₀	Inhalation LC ₅₀
Copper sulphate	300 mg/kg	> 2000 mg/kg	
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
Copper Sulphate	LC ₅₀ 96hr 0.001 mg/L NOEC 768h 0.0048 mg/L		EC ₅₀ 72h 0.0165 mg/L
Hydrochloric acid	LC ₅₀ 96hr 70.05 mg/L NOEC 504hr 10 mg/L		EC ₅₀ 96hr 344.947 mg/L

	Persistence H ₂ O/ Soil	Persistence Air	Bioaccumulation	Mobility
Copper sulphate	HIGH	HIGH	LOW	LOW
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 **3Z**

Land Transport UNDG

Class or division 9

Subsidiary Risk None

UN Number **3082**
UN Packing Group III
Shipping Name **ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.**
Special Provisions 274 331 335 375
Limited Quantities 5 L

Air Transport IATA

ICAO/IATA Class 9
ICAO/IATA Subrisk None
UN/ID Number **3082**
Packing Group III
Special provision A97 A158 A197
Cargo only
Packing instructions 964
Maximum Qty/pack 450 L
Passenger and Cargo
Packing instructions 964
Maximum Qty/pack 450 L
Passenger & Cargo Limited Quantity
Packing instructions Y964
Maximum Qty/pack 30 kg G
Shipping Name **ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.**

Marine Transport IMDG

IMDG Class 9
IMDG Subrisk None
UN Number **3082**
UN Packing Group III
EmS Number F-A S-F
Special provisions 273 335 969
Limited quantities 5 L
Marine pollutant Yes
Shipping Name **ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.**

Section 15 - Regulatory Information

HSNO approval number and Group Standard:

HSR002670 Surface Coatings & Colourants (Subsidiary Hazard)

Group Standard conditions and other regulations:

Condition	Requirement
SDS	Safety data sheet must be available to a person handling the substance within 10 minutes.
Emergency plan	Required when quantities exceed 10,000 Lt
Certified handler	Not required
Tracking	Not applicable
Bunding and secondary containment	Required
Signage	Required when present in quantity 1,000 L.
Location Compliance Certificate	Not required
Hazardous Atmosphere zone	Not applicable
Fire extinguisher	Not applicable

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 ₅₀	Lethal concentration 50% - concentration fatal to 50% of the tested population
LD ₅₀	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.
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
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End of MSDS