

1. Identification of Substance & Company**Product**

Product name	CHEMSET MAXIMA CAPSULES
Other names	CHEMSET SPIN CAPSULES
Product code	CHEM12, CHEM16 and CHEM2024
HSNO approval	HSR002662
UN number	3269
Proper Shipping Name	POLYESTER RESIN KIT
Packaging group	II
Hazchem code	3YE
Poison schedule	S5
Uses	Anchoring bolts into concrete.

Company Details

Company	Ramset New Zealand A Division of ITW New Zealand
Address	29 Poland Rd Glenfield Auckland 0627 New Zealand
Telephone	+64 9 444-3510

Emergency Telephone Number: 09 444-3510 (Monday to Friday. 8:00 am to 5:00 pm)
POISON CENTRE NUMBER: 0800 764 766 (24 Hours)

2. Hazard Identification**Hazard Classifications**

This product has been approved under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002662, Surface Coatings and Colourants (Flammable) Group Standard 2006), and is classified as follows:

Classes:

- 3.1B highly flammable liquid
- 6.3B mild skin irritant
- 6.4A eye irritant
- 6.5B contact sensitiser
- 6.9B suspected human target organ toxicant
- 9.1D harmful to the aquatic environment

SYMBOLS**DANGER****Other Classifications**

There are no other classifications that are known to apply.

Hazard and Precautionary Statements

Hazard	Highly flammable liquid and vapour. Causes mild skin irritation. Causes eye irritation. May cause an allergic skin reaction. May cause damage to organs. Harmful to aquatic life with long lasting effects.
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Precautionary

- Read label before use.
- Keep away from ignition. No smoking.
- Keep container tightly closed.
- Ground/bond container and receiving equipment.
- Use explosion-proof electrical/ventilating/lighting equipment.
- Use only non-sparking tools.
- Take precautionary measures against static discharge.
- Wear protective gloves/eye/face protection.
- Wash hands thoroughly after handling.
- Do not breathe vapours.
- Contaminated work clothing should not be allowed out of the workplace.
- Obtain special instructions before use.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Avoid release to the environment.

Further precautionary statements can be found in Section 4 – First Aid.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Class for ingredient(s)	Conc (% w/w)
Methyl Methacrylate	80-62-6	3.1B, 6.1D (inhalation), 6.1E (oral), 6.3B, 6.4A, 6.5B (contact), 6.9B (inhalation), 9.1D (fish), 9.1D (crustacean), 9.1D (algal)	10 to 25%
Dibenzoyl Peroxide	94-36-0	5.2B, 6.4A, 6.5B (contact), 9.1D (fish), 9.1D (crustacean)	0 to 2.5%
Non-hazardous Ingredients	proprietary	not reported	balance

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

You should call the National Poisons Centre if you feel that you may have been harmed, or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

If medical advice is needed, have this MSDS, product container or label at hand. If exposed or concerned: Get medical advice/ attention.

Recommended first aid facilities Ready access to running water is required. Accessible eyewash is recommended. Emergency shower, hand wash, soap. CPR training, oxygen mask.

Exposure

Swallowed IF SWALLOWED: Do NOT induce vomiting. Rinse mouth. Contact a doctor if you feel unwell.

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Apply continuous irrigation with water for at least 15 minutes holding eyelids apart. Call a POISON CENTER or doctor/physician if irritation persists.

Skin contact IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention. Take off contaminated clothing and wash before re-use.

Inhaled Generally, inhalation of fumes is unlikely to result in adverse health effects. If coughing, dizziness or shortness of breath is experienced, remove the patient to fresh air immediately. If patient is unconscious, place in the recovery position (on the side) for transport and contact a doctor.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards:	Flammable mixture. Material can be ignited easily and burns vigorously. Part B is a strong oxidiser. Contact with combustible material may cause fire.
Suitable extinguishing substances:	Carbon dioxide, dry chemical, foam and water fog.
Unsuitable extinguishing substances:	Do not use water stream.
Products of combustion:	Product may decompose in a fire and produce toxic fumes or vapours. Hazardous decomposition products include carbon oxides, oxides of nitrogen.
Protective equipment:	Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.
Hazchem code:	3YE

6. Accidental Release Measures

Containment	If greater than 1,000L is stored, secondary containment and emergency plans to manage any potential spills must be in place. Prevent product from entering environment.
Emergency procedures	In the event of spillage alert the fire brigade to location and give brief description of hazard. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain spill. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses.
Clean-up method	Collect product and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
Disposal	Do not use combustible materials (e.g. sawdust) to absorb spills. Collect recoverable material into labelled containers for recycling or salvage. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.
Precautions	Wear protective equipment to prevent skin and eye contamination and the inhalation of vapour. Work up wind or increase ventilation.

7. Storage & Handling

Storage	Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep in a cool, dry place. For maximum shelf life, store between 4°C and 26°C. Do not store above 43°C. Do not store near combustible materials.
Handling	Avoid contact with incompatible substances as listed in Section 10. Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Do not store, use or handle near an open flame, sources of heat or other sources of ignition. Do not cut, weld, solder, drill, grind or expose containers to heat, flame and sources of ignition. Avoid skin and eye contact and inhalation of vapour. Use only as directed; avoid uncontrolled mixing with other material, esp polymerisable or combustible materials.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by the NZ Department of Labour for this product. There is a general limit of 10mg/m³ for dusts and mists when limits have not otherwise been established.

NZ Workplace Exposure Stds (OSH 2002)	Ingredient	WES-TWA	WES-STEL
	Methyl methacrylate	50ppm, 208mg/m ³	100ppm, 416mg/m ³
	Benzoyl peroxide	5mg/m ³	no data

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far

below the WES as practicable by applying the hierarchy of control required by the Health and Safety in Employment Act 1992 (HSE). Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment
Eyes


To protect eyes, it is recommended that goggles, safety glasses or full face mask be worn. Avoid wearing contact lenses.

Skin


Avoid repeated or prolonged skin contact. Wear overalls, rubber boots and impervious gloves, e.g. PVA gloves. Nitrile, natural rubber and Neoprene gloves are NOT recommended.
 Remove protective clothing and wash exposed areas with soap and water prior to eating, drinking or smoking. Wash hands after handling.

Respiratory

A respirator with an organic vapour cartridge when airborne concentrations approach the WES (section 8) should be used. If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order.

WES Additional Information

No additional information

9. Physical & Chemical Properties

Appearance	Clear glass capsule containing sand particles and mobile clear liquid
Odour	Acrylic odour
pH	No data
Vapour pressure	< 110 kPa
Viscosity	no data
Boiling point	No data
Volatile materials	No data
Freezing / melting point	- 48°C
Solubility	Not soluble in water
Specific gravity / density	Flammable content <1g/ml
Flash point	21°C
Danger of explosion	Not explosive
Auto-ignition temperature	421°C
Upper & lower flammable limits	No data
Corrosiveness	Not corrosive

10. Stability & Reactivity

Stability	This product is thermally stable when stored and used as directed.
Conditions to be avoided	UV and sunlight, heat
Incompatible groups	Free radical catalysts, peroxides, strongly alkaline or reactive metals.
Hazardous decomposition products	Thermal decomposition products include carbon oxides, oxides of nitrogen, water and carbon.
Hazardous reactions	React with unsaturated resin causing exothermic polymerisation.

11. Toxicological Information

Summary

No specific data is available for this mixture. Where available, toxicological data has been researched and data for the mixture calculated. The results of these calculations are presented below (supporting data):

Contact with the mixture may cause irritation to the skin, eyes and the respiratory system and an allergic skin reaction. If inhaled, respiratory tract irritation can occur which can result in coughing and difficulties in breathing. Ingestion may cause nausea, diarrhea or systemic effects. Prolonged or overexposure may cause damage to liver and kidneys. Exposure to Methyl Methacrylate vapours may cause cardiac arrest and other cardiovascular effects.

Supporting Data

Acute	Oral	Using LD ₅₀ 's for ingredients, the estimated LD ₅₀ (oral) for the mixture >5,000 mg/kg. LD ₅₀ (oral) data: Methyl methacrylate: 4700 mg/kg (dog), Benzoyl peroxide: no data.
	Dermal	Using LD ₅₀ 's for ingredients, the estimated LD ₅₀ (dermal, rat) for the mixture is >5,000 mg/kg.
	Inhaled	Using LC ₅₀ 's for ingredients, the calculated LD ₅₀ (oral) for the mixture is >20mg/L. LC ₅₀ (inhalation): Methyl methacrylate: 15.375 mg/l - 29 mg/l (rat, vapour). Inhalation may cause irritation to the throat and respiratory tract.
	Eye	The mixture is considered to be irritating to the eye, because Methyl methacrylate and Benzoyl peroxide is a eye irritant.
	Skin	The mixture is considered to be a mild skin irritant, because Methyl methacrylate and Benzoyl Peroxide is considered a mild skin irritant.
Chronic	Sensitisation	The mixture is considered to be a contact sensitizer due to the presence of Methyl methacrylate and Benzoyl peroxide.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	No ingredient present in the uncured mixture at concentrations > 0.1% is considered a carcinogen.
	Reproductive / Developmental Systemic	No ingredient present at concentrations > 0.1% is considered a reproductive toxicant.
	Aggravation of existing conditions	The mixture is suspected to be a target organ toxicant by by inhalation, because methyl methacrylate is suspected to be a target organ toxicant. Methyl methacrylate vapor has hypertensive properties which may cause cardiac arrest and other cardiovascular effects. None known.

12. Ecological Data

Summary

No specific data is available for this product. Where available, ecotoxicological data has been researched and data for the mixture calculated. The results of these calculations are presented below. The product is considered to have the following ecotoxicity groups:

Supporting Data

Aquatic	No data for mixture is available. Using EC ₅₀ 's for ingredients, the estimated EC ₅₀ for the mixture is between 1mg/L and 100 mg/L. EC ₅₀ data: Methyl methacrylate: 69 mg/l (48hr, Daphnia magna), 191 mg/l (96hr, fresh water fish), 170 mg/l (96hr, algae) (Bluegill, 96hr) >1400mg/L, Benzoyl peroxide: 2.4 mg/l (48hr, Daphnids) and Dibutyl phthalate: 0.35 mg/l (96hr, yellow perch), 0.4 mg/l (96hr, algae), 3.70 mg/L (48hr, Daphnia magna).
Bioaccumulation	Not bioaccumulative.
Degradability	Biodegradable.
Soil	No data available for the mixture.
Terrestrial vertebrate	This product is not considered harmful to terrestrial vertebrates. No LC ₅₀ (diet) data for ingredients are available and the classification is based on the LD ₅₀ (oral) – see section 11 – oral toxicity.
Terrestrial invertebrate	The mixture is not considered harmful to terrestrial invertebrates.
Biocidal	Not applicable

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	The cartridges are a disposable injection system and therefore cannot be recycled. Send to landfill or similar.

14. Transport Information

Transport according to NZS 5433 (Transport of Hazardous Substances on Land). The mixture considered a hazardous substance for transport.

UN number:	3269	Proper shipping name:	POLYESTER RESIN KIT
Class(es):	3	Packing group:	II
Precautions:	Flammable	Hazchem code:	3YE

15. Regulatory Information

This product has been transferred to HSNO (transferred substance), ERMA approval code: Surface Coatings and Colourants (Flammable) Group Standard 2006, HSR002662

Specific Workplace Controls (as per HSNO approval referenced to Controls Matrix)

Key workplace requirements are:

MSDS	To be available within 10 minutes in workplaces storing any quantity.
Labelling	No removal of labels and/or decanting of product into other containers can occur.
Emergency plan	Approved Evacuation Scheme required if > 1000L is stored.
Approved handler	Required if storing or handling >500L (container size <5L).
Tracking	Not required.
Bunding and secondary containment	Required if > 1000L is stored in any one location.
Signage	Required if > 250kg is stored in any one location.
Test certificate	Required if storing >100 L (closed containers > 5 L), >250 L (closed containers ≤ 5 L) or 50 L (open or in use) in any one location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health, Safety in Employment Act and Regulations, local Council Rules and Regional Council Plans.

16. Other Information**Abbreviations**

Approval Code	Approval Surface Coatings and Colourants (Flammable) Group Standard 2006, Controls, ERMA. www.ermanz.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
Ceiling	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
Controls Matrix	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
EC₅₀	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
ERMA	Environmental Risk Management Authority
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL	Lower Explosive Limit
LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
MSDS	Material Safety Data Sheet (or Safety Data Sheet)
OSH	The Occupational Safety and Health Service of the Department of Labour (NZ)
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UEL	Upper Explosive Limit
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed in a work day.

References

Data	Unless otherwise stated comes from the ERMA HSNO chemical classification information database (CCID) http://www.ermanz.govt.nz/hs/compliance/chemicals.html , for specific chemicals.
ERMA Transfer Gazettes	Classifications and controls assigned for specific ingredients (consolidated gazette, 2004)
Controls Matrix	Part of the ERMA New Zealand User Guide to the HSNO Control Regulations
WES 2002	The NZ Workplace Exposure Standards Effective from 2002, published by OSH and available on their web site – www.osh.dol.govt.nz .
Other References:	Manufacturers MSDS, ChemIDplus

Disclaimer

This MSDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The MSDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the MSDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO classifications, are based on our experience, ERMA Guidelines and international classifications. This MSDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the MSDS author, email info@datachem.co.nz or phone: **+64 9 940 30 80**.

