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## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

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### 1.1 Product identifier

|              |   |
|--------------|---|
| Product name | <b>RAMSET CHEMSET MAXIMA CAPSULES M20 M24 (NZ)</b>  |
| Synonyms     | CHEM2024 - MANUFACTURER'S CODE • CHEMSET MAXIMA CAPSULES M20 M24 (FORMERLY) • CHEMSET MAXIMA SPIN CAPSULES (FORMERLY) • CHEMSET SPIN CAPSULES (FORMERLY) • POLYESTER RESIN KIT • RAMSET CHEMSET SPIN CAPSULES • SPIN CAPSULES |

### 1.2 Uses and uses advised against

|      |                                    |
|------|------------------------------------|
| Uses | ANCHORING SYSTEM • FASTENING AGENT |
|------|------------------------------------|

### 1.3 Details of the supplier of the product

|               |   |
|---------------|---|
| Supplier name | <b>RAMSETREID NZ (A DIVISION OF ITW NEW ZEALAND)</b>          |
| Address       | 23-29 Poland Road, Glenfield, Auckland, 0627, NEW ZEALAND     |
| Telephone     | 0800 88 22 12   |
| Email         | <a href="mailto:info@ramset.co.nz">info@ramset.co.nz</a>      |
| Website       | <a href="http://www.ramset.co.nz">http://www.ramset.co.nz</a> |

### 1.4 Emergency telephone numbers

|           |              |
|-----------|--------------|
| Emergency | 0800 734 607 |
|-----------|--------------|

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## 2. HAZARDS IDENTIFICATION

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### 2.1 Classification of the substance or mixture

HAZARDOUS ACCORDING TO NZ ENVIRONMENTAL PROTECTION AUTHORITY CRITERIA

#### Physical Hazards

Flammable Liquids: Category 3

#### Health Hazards

Acute Toxicity: Inhalation: Category 4  
Acute Toxicity: Oral: Category 5  
Carcinogenicity: Category 2  
Germ Cell Mutagenicity: Category 2  
Serious Eye Damage / Eye Irritation: Category 2A  
Skin Corrosion/Irritation: Category 2  
Skin Sensitisation: Category 1  
Specific Target Organ Toxicity (Repeated Exposure): Category 1  
Toxic to Reproduction: Category 2

#### Environmental Hazards

Aquatic Toxicity (Acute): Category 3

### 2.2 GHS Label elements

Signal word **DANGER**

Pictograms



**PRODUCT NAME RAMSET CHEMSET MAXIMA CAPSULES M20 M24 (NZ)****Hazard statements**

|      |   |
|------|---|
| H226 | Flammable liquid and vapour.                                    |
| H303 | May be harmful if swallowed.                                    |
| H315 | Causes skin irritation.   |
| H317 | May cause an allergic skin reaction.                            |
| H319 | Causes serious eye irritation.                                  |
| H332 | Harmful if inhaled.   |
| H341 | Suspected of causing genetic defects.                           |
| H351 | Suspected of causing cancer.                                    |
| H361 | Suspected of damaging fertility or the unborn child.            |
| H372 | Causes damage to organs through prolonged or repeated exposure. |
| H402 | Harmful to aquatic life.  |

**Prevention statements**

|      |  |
|------|--|
| P201 | Obtain special instructions before use.  |
| P202 | Do not handle until all safety precautions have been read and understood.                      |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P233 | Keep container tightly closed.   |
| P240 | Ground and bond container and receiving equipment.   |
| P241 | Use explosion-proof electrical/ventilating/lighting equipment.                                 |
| P242 | Use non-sparking tools.  |
| P243 | Take action to prevent static discharges.  |
| P260 | Do not breathe dust/fume/gas/mist/vapours/spray.   |
| P264 | Wash thoroughly after handling.  |
| P270 | Do not eat, drink or smoke when using this product.  |
| P271 | Use only outdoors or in a well-ventilated area.  |
| P272 | Contaminated work clothing should not be allowed out of the workplace.                         |
| P273 | Avoid release to the environment.  |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection.                     |

**Response statements**

|                    |  |
|--------------------|--|
| P303 + P361 + P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.                              |
| P304 + P340        | IF INHALED: Remove person to fresh air and keep comfortable for breathing.   |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P308 + P313        | IF exposed or concerned: Get medical advice/ attention.  |
| P321               | Specific treatment is advised - see first aid instructions.  |
| P362 + P364        | Take off contaminated clothing and wash it before reuse.   |
| P370 + P378        | In case of fire: Use appropriate media to extinguish.  |

**Storage statements**

|             |  |
|-------------|--|
| P403 + P235 | Store in a well-ventilated place. Keep cool. |
| P405        | Store locked up.                             |

**Disposal statements**

|      |  |
|------|--|
| P501 | Dispose of contents/container in accordance with relevant regulations. |
|------|--|

**2.3 Other hazards**

No information provided.

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**3. COMPOSITION/ INFORMATION ON INGREDIENTS**

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**3.1 Substances / Mixtures**

| Ingredient                | CAS Number    | EC Number     | Content  |
|---------------------------|---------------|---------------|----------|
| STYRENE                   | 100-42-5      | 202-851-5     | <12.5%   |
| BENZOYL PEROXIDE          | 94-36-0       | 202-327-6     | 1 to 10% |
| NON HAZARDOUS INGREDIENTS | Not Available | Not Available | <77%     |

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**4. FIRST AID MEASURES**

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**4.1 Description of first aid measures**

|                   |  |
|-------------------|--|
| <b>Eye</b>        | If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.                       |
| <b>Inhalation</b> | If inhaled, remove from contaminated area. To protect rescuer, use a Type A (Organic vapour) respirator or an Air-line respirator (in poorly ventilated areas). Apply artificial respiration if not breathing. |

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|                             |   |
|-----------------------------|---|
| <b>Skin</b>                 | If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.          |
| <b>Ingestion</b>            | For advice, contact the National Poisons Centre on 0800 764 766 (0800 POISON) or +643 479 7248 or a doctor (at once). If swallowed, do not induce vomiting. Ingestion is considered unlikely due to product form. |
| <b>First aid facilities</b> | Eye wash facilities and safety shower should be available.  |

### **4.2 Most important symptoms and effects, both acute and delayed**

See Section 11 for more detailed information on health effects and symptoms.

### **4.3 Immediate medical attention and special treatment needed**

Treat symptomatically.

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## **5. FIRE FIGHTING MEASURES**

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### **5.1 Extinguishing media**

Dry agent, carbon dioxide or foam. Prevent contamination of drains and waterways.

### **5.2 Special hazards arising from the substance or mixture**

Flammable - potentially explosive vapour. May evolve toxic gases (carbon oxides, benzene, phenyls, styrene) when heated to decomposition. Styrene will polymerise readily at elevated temperatures and may violently rupture sealed containers. Eliminate all ignition sources including cigarettes, open flames, spark producing switches/tools, heaters, naked lights, pilot lights, etc when handling. May evolve nitrogen oxides when heated to decomposition.

### **5.3 Advice for firefighters**

Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

### **5.4 Hazchem code**

- 2Y
- 2 Alcohol Resistant Foam is the preferred firefighting medium but, if it is not available, fine water spray can be used.
- Y Risk of violent reaction or explosion. Wear full fire kit and breathing apparatus. Contain spill and run-off.

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## **6. ACCIDENTAL RELEASE MEASURES**

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### **6.1 Personal precautions, protective equipment and emergency procedures**

Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS. Ventilate area where possible.

### **6.2 Environmental precautions**

Prevent product from entering drains and waterways.

### **6.3 Methods of cleaning up**

Contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal. Eliminate all sources of ignition.

### **6.4 Reference to other sections**

See Sections 8 and 13 for exposure controls and disposal.

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## **7. HANDLING AND STORAGE**

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### **7.1 Precautions for safe handling**

Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

### **7.2 Conditions for safe storage, including any incompatibilities**

Store in a cool, dry, well ventilated area, removed from incompatible substances, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Check regularly for leaks or spills.

### **7.3 Specific end uses**

No information provided.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control parameters

#### Exposure standards

| Ingredient       | Reference | TWA |                   | STEL |                   |
|------------------|-----------|-----|-------------------|------|-------------------|
|                  |           | ppm | mg/m <sup>3</sup> | ppm  | mg/m <sup>3</sup> |
| Benzoyl peroxide | WES [NZ]  | --  | 5                 | --   | --                |
| Styrene          | WES [NZ]  | 50  | 213               | 100  | 426               |

#### Biological limits

| Ingredient | Determinant                                      | Sampling Time | BEI                 |
|------------|--|---------------|---------------------|
| STYRENE    | Mandelic acid plus phenylglyoxylic acid in urine | End of shift  | 150 mg/g creatinine |
|            | Styrene in urine                                 | End of shift  | 20 µg/L             |

Reference: ACGIH Biological Exposure Indices

### 8.2 Exposure controls

**Engineering controls** Avoid inhalation. Use in well ventilated areas. If capsules/ cartridges are damaged (bulk), mechanical explosion proof extraction ventilation is recommended. Flammable/explosive vapours may accumulate in poorly ventilated areas. Vapours are heavier than air and may travel some distance to an ignition source and flash back. Maintain vapour levels below the recommended exposure standard.

#### PPE

- Eye / Face** Wear splash-proof goggles.
- Hands** Wear barrier gloves.
- Body** With prolonged use, wear coveralls.
- Respiratory** Where an inhalation risk exists, wear a Type A (Organic vapour) respirator.



## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

|                                  |                                  |
|----------------------------------|----------------------------------|
| <b>Appearance</b>                | LIQUID (ENCLOSED IN GLASS VIALS) |
| <b>Odour</b>                     | STYRENE ODOUR                    |
| <b>Flammability</b>              | FLAMMABLE                        |
| <b>Flash point</b>               | 31°C (Polyester resin)           |
| <b>Boiling point</b>             | 145°C (Approximately)            |
| <b>Melting point</b>             | NOT AVAILABLE                    |
| <b>Evaporation rate</b>          | NOT AVAILABLE                    |
| <b>pH</b>                        | NOT AVAILABLE                    |
| <b>Vapour density</b>            | NOT AVAILABLE                    |
| <b>Relative density</b>          | 1.60                             |
| <b>Solubility (water)</b>        | INSOLUBLE                        |
| <b>Vapour pressure</b>           | NOT AVAILABLE                    |
| <b>Upper explosion limit</b>     | 8.0 %                            |
| <b>Lower explosion limit</b>     | 1.1 %                            |
| <b>Partition coefficient</b>     | NOT AVAILABLE                    |
| <b>Autoignition temperature</b>  | NOT AVAILABLE                    |
| <b>Decomposition temperature</b> | NOT AVAILABLE                    |
| <b>Viscosity</b>                 | NOT AVAILABLE                    |
| <b>Explosive properties</b>      | NOT AVAILABLE                    |
| <b>Oxidising properties</b>      | NOT AVAILABLE                    |
| <b>Odour threshold</b>           | NOT AVAILABLE                    |

### 9.2 Other information

|            |            |
|------------|------------|
| <b>VOC</b> | 122.76 g/L |
|------------|------------|

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

Carefully review all information provided in sections 10.2 to 10.6.

### 10.2 Chemical stability

Stable under recommended conditions of storage.

### 10.3 Possibility of hazardous reactions

Styrene may polymerise with violent rupture/explosion.

### 10.4 Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources.

### 10.5 Incompatible materials

Incompatible with combustible materials, oxidising agents (e.g. hypochlorites), reducing agents (e.g. sulphites), acids (e.g. nitric acid), alkalis (e.g. sodium hydroxide), metals.

### 10.6 Hazardous decomposition products

May evolve toxic gases (carbon oxides, benzene, phenyls, styrene) when heated to decomposition.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

**Acute toxicity** Harmful if inhaled. May be harmful if swallowed.

**Information available for the ingredients:**

| Ingredient       | Oral LD50          | Dermal LD50                      | Inhalation LC50                     |
|------------------|--------------------|----------------------------------|-------------------------------------|
| STYRENE          | > 2000 mg/kg (rat) | > 2000 mg/kg (rat)<br>(OECD 402) | 11.8 mg/L/4 hours (rat)<br>(vapour) |
| BENZOYL PEROXIDE | 5700 mg/kg (mouse) | > 1000 mg/kg (mammal)            | --                                  |

**Skin** Due to product encapsulation, the potential for skin contact with contents is reduced. If the container is damaged, contact may result in irritation, redness, pain, rash, dermatitis and possible burns. Effects may be delayed.

**Eye** Due to product encapsulation, the potential for eye contact with contents is reduced. If the container is damaged, direct contact may result in irritation, lacrimation and burns.

**Sensitisation** May cause an allergic skin reaction. This product is not classified as a respiratory sensitiser.

**Mutagenicity** Suspected of causing genetic defects.

**Carcinogenicity** Due to the product encapsulation, exposure to contents is not anticipated with normal use. Styrene is classified as probably carcinogenic to humans (IARC Group 2A).

**Reproductive** Styrene is suspected of damaging the unborn child.

**STOT - single exposure** Over exposure may result in irritation of the nose and throat, coughing, nausea, vomiting, dizziness and breathing difficulties. High level exposure may result in respiratory paralysis and unconsciousness.

**STOT - repeated exposure** Due to product encapsulation, the potential for exposure to the contents is reduced. May cause damage to organs (nasal epithelial and ear) through prolonged or repeated exposure to styrene if inhaled.

**Aspiration** Aspiration or inhalation may cause chemical pneumonitis and pulmonary oedema.

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

Harmful to aquatic life.

### 12.2 Persistence and degradability

No information provided.

### 12.3 Bioaccumulative potential

No information provided.

### 12.4 Mobility in soil

No information provided.

**PRODUCT NAME RAMSET CHEMSET MAXIMA CAPSULES M20 M24 (NZ)****12.5 Other adverse effects**

If released to the atmosphere, styrene will react rapidly with both hydroxyl radicals and ozone with a combined calculated half-life of about 5 hours. If released to environmental bodies of water, styrene will volatilise relatively rapidly and biodegrade, but is not expected to hydrolyse. If released to soil it will biodegrade and have low soil mobility.

**13. DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods**

**Waste disposal** Mix components together to neutralise, wearing appropriate protective equipment - do not seal container until reaction is complete. Dispose of the reaction product in accordance with advice from the Environmental Protection Authority.

**Legislation** Dispose of in accordance with relevant local legislation.

**14. TRANSPORT INFORMATION**

**CLASSIFIED AS A DANGEROUS GOOD ACCORDING TO LAND TRANSPORT RULE: DANGEROUS GOODS 2005; NZS 5433:2012, UN, IMDG OR IATA**



|                                    | LAND TRANSPORT (NZS 5433)                 | SEA TRANSPORT (IMDG / IMO)                | AIR TRANSPORT (IATA / ICAO)               |
|------------------------------------|---|---|---|
| <b>14.1 UN Number</b>              | 3269                                      | 3269                                      | 3269                                      |
| <b>14.2 Proper Shipping Name</b>   | POLYESTER RESIN KIT, liquid base material | POLYESTER RESIN KIT, liquid base material | POLYESTER RESIN KIT, liquid base material |
| <b>14.3 Transport hazard class</b> | 3   | 3   | 3   |
| <b>14.4 Packing Group</b>          | III                                       | III                                       | III                                       |

**14.5 Environmental hazards**

Not a Marine Pollutant.

**14.6 Special precautions for user**

**Hazchem code** ●2Y  
**EmS** F-E, S-D

**15. REGULATORY INFORMATION****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Approval code** HSR002662 (2020)  
**Group standard** Surface Coatings and Colourants (Flammable) Group Standard 2020  
**Inventory listings** **AUSTRALIA: AIIC (Australian Inventory of Industrial Chemicals)**  
 All components are listed on AIIC, or are exempt.  
**NEW ZEALAND: NZIoC (New Zealand Inventory of Chemicals)**  
 All components are listed on the NZIoC inventory, or are exempt.

**16. OTHER INFORMATION**

**Additional information** ORGANIC PEROXIDES: Fires involving organic peroxides can be intense and move rapidly due to product rapid decomposition with release of oxygen and may involve explosions. If spilt on combustible materials it may spontaneously ignite. A diluent is often added to organic peroxides to reduce shock sensitivity.

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IARC GROUP 2B - POSSIBLE HUMAN CARCINOGEN. This product contains an ingredient which has demonstrated sufficient evidence to have been classified by the International Agency for Research into Cancer (IARC) as possibly carcinogenic to humans and whose use should be strictly monitored and controlled.

**PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:**

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as form of product, method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

**HEALTH EFFECTS FROM EXPOSURE:**

It should be noted that the effects from exposure to this product will depend on several factors including: form of product; frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

**Abbreviations**

|                   |   |
|-------------------|---|
| ACGIH             | American Conference of Governmental Industrial Hygienists                                       |
| CAS #             | Chemical Abstract Service number - used to uniquely identify chemical compounds                 |
| CCID              | Chemical Classification and Information Database (HSNO)   |
| CNS               | Central Nervous System  |
| EC No.            | EC No - European Community Number   |
| EMS               | Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)                   |
| EPA               | Environmental Protection Authority [New Zealand]  |
| GHS               | Globally Harmonized System  |
| HSNO              | Hazardous Substances and New Organisms  |
| IARC              | International Agency for Research on Cancer   |
| LC50              | Lethal Concentration, 50% / Median Lethal Concentration   |
| LD50              | Lethal Dose, 50% / Median Lethal Dose   |
| mg/m <sup>3</sup> | Milligrams per Cubic Metre  |
| OEL               | Occupational Exposure Limit   |
| pH                | relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline). |
| ppm               | Parts Per Million   |
| STEL              | Short-Term Exposure Limit   |
| STOT-RE           | Specific target organ toxicity (repeated exposure)  |
| STOT-SE           | Specific target organ toxicity (single exposure)  |
| TLV               | Threshold Limit Value   |
| TWA               | Time Weighted Average   |

**Report status**

This document has been compiled by RMT on behalf of the manufacturer, importer or supplier of the product and serves as their Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer, importer or supplier or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer, importer or supplier.

While RMT has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

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