

1. Identification of Substance & Company

Product

| | |
|-----------------------------|--|
| Product name | Mancostar 750 |
| Product code | none |
| ACVM | P10323 |
| HSNO approval | HSR100972 |
| Approval description | Raincozeb Plus |
| UN number | 3077 |
| Proper Shipping Name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (MANCOZEB 75%) |
| DG class | 9 |
| Packaging group | III |
| Hazchem code | 2Z |
| Uses | For the control of fungal diseases in a wide range of crops |

Company Details – Importer

| | |
|------------------------|--|
| Company Address | AgStar New Zealand Pty Ltd 4 Putakitaki Street, Lincoln, Christchurch 7608 New Zealand |
| Telephone | 027 483 9755 |

Company Details – Distributor

| | |
|------------------------|---|
| Company Address | Farmlands Co-operative Society Limited 535 Wairakei Road, Burnside, Christchurch 8053 |
| Telephone | 0800 200 600 |

24h EMERGENCY CONTACT: 0800 243 622 (0800 CHEMCALL)
NATIONAL POISON CENTRE: 0800 764 766

2. Hazard Identification

Approval

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR100972, Raincozeb Plus). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Hazard Classification) Notice 2020.

GHS 7 Classes

Hazard Statements

| | |
|--------------------------------------|---|
| Skin irritant category 2 | H315 - Causes skin irritation. |
| Eye irritant category 2 | H319 - Causes serious eye irritation. |
| Respiratory sensitiser category 1 | H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| Skin sensitiser category 1 | H317 - May cause an allergic skin reaction. |
| STOT* repeated exposure category 2 | H373 - May cause damage to organs through prolonged or repeated exposure. |
| Acute aquatic category 1 | H400 - Very toxic to aquatic life. |
| Chronic aquatic category 1 | H410 - Very toxic to aquatic life with long lasting effects. |
| Hazardous to terrestrial vertebrates | H433 - Harmful to terrestrial vertebrates. |

SYMBOLS

DANGER



Other Classifications

There are no other classifications that are known to apply.

Precautionary Statements

| | |
|-------------------|---|
| Prevention | <p>P103 - Read label before use.</p> <p>P260 - Do not breathe dust/fume/gas/mist/vapours/spray.</p> <p>P264 - Wash hands thoroughly after handling.</p> <p>P270 - Do not eat, drink or smoke when using this product.</p> <p>P272 - Contaminated work clothing should not be allowed out of the workplace.</p> <p>P273 - Avoid release to the environment.</p> <p>P280 - Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>P285 - In case of inadequate ventilation wear respiratory protection.</p> |
| Response | <p>P302+P352 - IF ON SKIN: Wash with plenty of soap and water.</p> <p>P304+P341 - IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.</p> <p>P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P314 - Get medical advice/attention if you feel unwell.</p> <p>P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.</p> <p>P337+P313 - If eye irritation persists: Get medical advice/attention.</p> <p>P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician.</p> <p>P362 - Take off contaminated clothing and wash before re-use.</p> <p>P391 - Collect spillage.</p> |
| Storage | no storage statement |
| Disposal | P501 - Dispose of contents/container in accordance with local/regional/national/international regulation. |

3. Composition / Information on Ingredients

| Component | CAS/ Identification | Conc (%) |
|---|---------------------|----------|
| Mancozeb | 8018-01-7 | 75% |
| Ingredients not contributing to GHS classes | mixture | balance |

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

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. 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).

Recommended first aid facilities Ready access to running water is recommended. Accessible eyewash is recommended.

Exposure

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|---------------------|---|
| Swallowed | IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting. Give a glass of water to drink. |
| Eye contact | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. |
| Skin contact | IF ON SKIN: 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 | IF INHALED: If breathing is difficult, remove to fresh air without placing yourself at risk and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician. |

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

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| Fire and explosion hazards: | There are no specific risks for fire/explosion for this chemical. It is non-flammable. |
| Suitable extinguishing substances: | Carbon dioxide, extinguishing powder, foam, fog sprays. |
| Unsuitable extinguishing substances: | Unknown. |
| Products of combustion: | Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures. |
| Protective equipment: | Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection. |
| Hazchem code: | 2Z |

6. Accidental Release Measures

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|-----------------------------|---|
| Containment | If greater than 100kg is stored, secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to storm water. |
| Emergency procedures | In the event of spillage alert the fire brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain using sand, earth or vermiculite. Do not use sawdust. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately). |
| Clean-up method | Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services. |
| Disposal | Sweep up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. 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 dusts. Work up wind or increase ventilation. |

7. Storage & Handling

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|-----------------|---|
| 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 from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10. |
| Handling | Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of vapour, mist or aerosols. |

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m³ for respirable particulates and 10mg/m³ for inhalable particulates when limits have not otherwise been established.

| NZ Workplace Exposure Stds | Ingredient | WES-TWA | WES-STEL |
|----------------------------|----------------------|---------|----------|
| | No ingredient listed | - | |

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 at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. 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

General

Personal Protective Equipment (PPE) should not be used as the primary means of exposure protection, except in the event of an accident or emergency situation or where all other means of protection have proven to inadequate. Clean PPE after use or dispose of as appropriate. Store PPE for re-use in a clean place. Regular training on the correct use of PPE should be provided. In particular the correct fitting and use of respirators and where applicable the cleaning of respirators should be undertaken.

Eyes



Avoid contact with eyes. Use safety glasses and or chemical splash goggles if splashes are possible. Select eye protection in accordance with AS/NZS 1337.

Skin



Avoid repeated or prolonged skin contact. Wear suitable protective clothing, e.g. overalls or aprons, rubber boots and impervious gloves. Protective gloves or suitably resistant material must comply with AS 2161. Replace frequently. Gloves should be checked for tears or holes before use. Protective clothing must comply with AS 2919, AS3765.1 or AS3765.2. PVC or rubber boots must comply with AS/NZS 2210.2 and selected and maintained in accordance with AS/NS2210.1. Remove protective clothing and wash exposed areas with soap and water prior to eating, drinking or smoking. Wash hands after handling.

Respiratory



A respirator when airborne concentrations approach the WES (section 8). Respirators must have filters appropriate to the duty and comply with AS/NZS1716 and selected, used and maintained in accordance with AS/NS 1715. Use respiratory with a particulate filter. If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order. Fit testing and clear guidelines and training for use and maintenance of PPE are necessary.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

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| Appearance | yellow green granule |
| Odour | slight odour |
| Odour Threshold | no data |
| pH | 6.0-9.0 (1% aqueous) |
| Freezing/melting point | no data |
| Boiling Point | no data |
| Flashpoint | non flammable |
| Flammability | non flammable |
| Upper & lower flammable limits | no LEL or UEL |
| Vapour pressure | no data |
| Vapour density | no data |
| Specific gravity/density | no data |
| Solubility | miscible in water |
| Partition coefficient | no data |
| Auto-ignition temperature | no data |
| Decomposition temperature | no data |
| Viscosity | no data |
| Particle Characteristics | no data |

10. Stability & Reactivity

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|---|---|
| Stability | Stable |
| Conditions to be avoided | Containers should be kept closed in order to avoid contamination. Keep from extreme heat and open flames. |
| Incompatible groups | Strong acids, bases and oxidisers |
| Substance Specific Incompatibility | none known |
| Hazardous decomposition products | Thermal decomposition may lead to toxic fumes |
| Hazardous reactions | none known |

11. Toxicological Information

Summary

IF SWALLOWED: may experience gastrointestinal irritation.
 IF IN EYES: may cause eye irritation.
 IF ON SKIN: may cause skin irritation. Sensitised individuals may experience an allergic skin reaction.
 IF INHALED: dusts may cause respiratory irritation. Sensitised individuals may experience an allergic reaction, e.g. asthma.
 CHRONIC TOXICITY: exposure may affect the nervous system.

Supporting Data

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| Acute | Oral | Using LD ₅₀ 's for ingredients, the Acute Toxicity Estimate (ATE) (oral) for the mixture is >2,000 mg/kg. |
| | Aspiration | This mixture is not considered an aspiration hazard. |
| | Dermal | Using LD ₅₀ 's for ingredients, the Acute Toxicity Estimate (ATE) (dermal) for the mixture is >2,000 mg/kg. |
| | Inhaled | Using LD ₅₀ 's for ingredients, the Acute Toxicity Estimate (ATE) (inhalation) for the mixture is >5mg/L/4h. |
| | Eye | The mixture is considered to be an eye irritant, because some of the ingredients present are considered eye irritants in more concentrated form. |
| Chronic | Skin | The mixture is considered to be a skin irritant, because some of the ingredients present are considered skin irritants in more concentrated form. |
| | Sensitisation | The mixture is considered to be a contact and respiratory sensitizer, because at least one of the ingredients present in greater than 0.1% is known to be a contact and respiratory sensitizer. |
| | Mutagenicity | No ingredient present at concentrations > 0.1% is considered a mutagen. |
| | Carcinogenicity | No ingredient present at concentrations > 0.1% is considered a carcinogen. |
| | Reproductive / Developmental Systemic | No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation. |
| | Aggravation of existing conditions | The mixture is considered to be a suspected target organ toxicant, because at least one of the ingredients present in greater than 1% is suspected to be a target organ toxicant. None known. |

12. Ecological Data

Summary

This mixture is very toxic towards aquatic organisms with long lasting effects and toxic towards terrestrial vertebrates. In all cases prevent run-off to drains, sewers and waterways.

Supporting Data

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|---------------------------------|---|
| Aquatic | Using EC ₅₀ 's for ingredients, the calculated EC ₅₀ for the mixture is <1 mg/L. Data considered includes: Mancozeb LD ₅₀ 0.46mg/L (96h, <i>Salmo gairdneri</i> (Rainbow trout), static), EC ₅₀ 0.073mg/L (<i>Daphnia magna</i>), EC ₅₀ 0.047mg/L (120hr, <i>Selenastrum capricornutum</i> (aquatic algae)), NOAEC 0.00219mg/L (35d, <i>Pimephales promelas</i> (Fathead minnow)). |
| Bioaccumulation | Mancozeb: BCF: 2.1, not bioaccumulative |
| Degradability | Mancozeb: not biodegradable |
| Soil | No evidence of soil toxicity. |
| Terrestrial vertebrate | See acute toxicity. EPA have classified this mixture as harmful towards terrestrial vertebrates. |
| Terrestrial invertebrate | No evidence of toxicity towards terrestrial invertebrates. |
| Biocidal | For the control of fungal diseases in a wide range of crops |

13. Disposal Considerations

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|------------------------|--|
| 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 Hazardous Substances (Disposal) Notice 2017 and 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

Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Considered a dangerous good for transport.

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|---------------------|------------------|------------------------------|--|
| UN number: | 3077 | Proper shipping name: | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (MANCOZEB 75%) |
| Class(es) | 9 | Packing group: | III |
| Precautions: | Marine pollutant | Hazchem code: | 2Z |

IMDG

| | | | |
|---------------------|------------------|------------------------------|--|
| UN number: | 3077 | Proper shipping name: | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (MANCOZEB 75%) |
| Class(es) | 9 | Packing group: | III |
| Precautions: | Marine pollutant | EmS | F-A, S-F |

IATA

| | | | |
|---------------------|------------------|------------------------------|--|
| UN number: | 3077 | Proper shipping name: | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (MANCOZEB 75%) |
| Class(es) | 9 | Packing group: | III |
| Precautions: | Marine pollutant | | |

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR100972, Raincozeb Plus. All ingredients appear on the New Zealand Inventory of Chemicals NZIoC.

Specific Controls

Key workplace requirements are:

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| SDS | To be available within 10 minutes in workplaces storing any quantity. |
| Inventory | An inventory of all hazardous substances must be prepared and maintained. |
| Packaging | All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied |
| Labelling | Must comply with the Hazardous Substances (Labelling) Notice 2017. |
| Emergency plan | Required if > 100kg is stored. |
| Certified handler | This product must be under the personal control of a suitably qualified handler when mixed, loaded or applied. |
| Tracking | Not required. |
| Bunding & secondary containment | Required if > 100kg is stored. |
| Signage | Required if > 100kg is stored. |
| Location compliance certificate | Not required. |
| Flammable zone | Not required. |
| Fire extinguisher | Not required. |
| Record keeping | Records of use must be kept if using more than 3 kg of Mancostar 750 within 24 hours in a place where the product is likely to enter air or water and leave the application area. |
| Additional controls | The maximum level of ethylene thiourea in the mancozeb component of this substance must not exceed 2 g/kg. See label for directions for use |

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.
ACVM number: P10323

16. Other Information

Abbreviations

| | |
|------------------------|--|
| Approval Code | Approval HSR100972, Raincozeb Plus Controls, EPA. www.epa.govt.nz |
| CAS Number | Unique Chemical Abstracts Service Registry Number |
| EC₅₀ | Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species) |
| EPA | Environmental Protection Authority (New Zealand) |
| GHS | Globally Harmonised System of Classification and Labelling of Chemicals, 7 th revised edition, 2017, published by the United Nations. |
| 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) |
| 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) |
| NZIoC | New Zealand Inventory of Chemicals |
| 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 |
| STOT RE | System Target Organ Toxicity – Repeated Exposure |
| STOT SE | System Target Organ Toxicity – Single Exposure |
| 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 during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone. |

References

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|--------------------------|---|
| Data | Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID). |
| Controls | EPA notices, www.epa.govt.nz , Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz |
| WES | The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz . |
| Other References: | Suppliers SDS |

Review

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|-------------------------|--------------------------|
| Date | Reason for review |
| 27 November 2025 | Not applicable - New SDS |

Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS 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 SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely GHS 7 classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: +64 21 1040951.

