

1. Identification of Substance & Company

Product

| | |
|-----------------------------|---|
| Product name | Avo mix |
| Other names | not assigned |
| Product codes | not assigned |
| HSNO approval | HSR002521 |
| Approval description | Animal Nutritional and Animal Care Products Group Standard 2017 |
| UN number | NA |
| DG class | NA |
| Proper Shipping Name | NA |
| Packaging group | NA |
| Hazchem code | NA |
| Uses | Avocado fertiliser |

Company Details

| | |
|------------------|---|
| Company | Fert Trade is a division of Fertco 2016 Ltd |
| Address | 20A Jean Batten Drive Mount Maunganui New Zealand |
| Telephone | 0800 337 826 |

Emergency Telephone Number: 0800 337 826

2. Hazard Identification

Approval in New Zealand

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002521, Animal Nutritional and Animal Care Products Group Standard 2017): The substance has been classified as hazardous according to the criteria in the Hazardous substances (Minimum Degrees of Hazard) Notice 2017.

Classes

6.3 A
6.4 A
6.8 B
6.9 B
9.1C

Hazard Statements

H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H361 - Suspected of damaging fertility or the unborn child.
H373 - May cause damage to organs through prolonged or repeated exposure.
H412 - Harmful to aquatic life with long lasting effects.

SYMBOLS

WARNING



Other Classification

There are no other classifications that are known to apply.

Precautionary Statements

P103 - Read label before use.
P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe dust.
P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection*.
P281 - Use personal protective equipment as required.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P332+P313 - If skin irritation occurs: Get medical advice/ attention.
P362 - Take off contaminated clothing and wash before re-use.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P308+P313 - IF exposed or concerned: Get medical advice/ attention.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local/regional/national/international regulation.

3. Composition / Information on Ingredients

| Component | CAS/ Identification | Conc (%) |
|--|---------------------|----------|
| ammonium phosphate dibasic | 7783-28-0 | 10-30% |
| potassium sulphate | 7778-80-5 | 30-60% |
| calcium ammonium nitrate | 15245-12-2 | 20-40% |
| borates | proprietary | 1-10% |
| zinc sulphate | 7733-02-0 | <2.5% |
| manganese sulphate monohydrate | 7785-87-7 | <2.5 |
| Ingredients not contributing to HSNO classes | proprietary | 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

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). IF exposed or concerned: Get medical advice/ attention.

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

Exposure

| | |
|---------------------|--|
| Swallowed | Do NOT induce vomiting. Give a glass of water to drink. Contact a doctor if experiencing symptoms. |
| 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 or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. |
| Inhaled | Generally, inhalation of dusts 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

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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 or water jet. Fight larger fires with water jet or alcohol resistant foam. |
| 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: | NA |

6. Accidental Release Measures

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|-----------------------------|---|
| Containment | If greater than 1000kg 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 | If a significant spill occurs: Stop leak if safe/necessary; Isolate area. Collect spill – see below; Transfer to container for disposal. Dispose of according to guidelines below (Section 13). |
| 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 | 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 | Store in the closed, original container in a dry, well ventilated area. Do not store for prolonged periods in direct sunlight. Protect from moisture. Keep away from strong oxidising agents and acids. |
| 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 |
|----------------------------|---------------|---|------------------|
| | Borates: | anhydrous: 1mg/m ³ decahydrate: 5mg/m ³ pentahydrate 1mg/m ³ | data unavailable |
| | Zinc sulphate | zinc dust: 10mg/m ³ | data unavailable |

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

| | | |
|--------------------|---|---|
| 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 overalls, 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 a respirator with a particulate/dust 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

| | |
|---|------------------|
| Appearance | solid |
| Odour | not specified |
| pH | no data |
| Vapour pressure | no data |
| Viscosity | no data |
| Boiling point | no data |
| Volatile materials | no data |
| Freezing / melting point | no data |
| Solubility | soluble in water |
| Specific gravity / density | not determined |
| Flash point | no data |
| Danger of explosion | not explosive |
| Auto-ignition temperature | no data |
| Upper & lower flammable limits | no data |
| Corrosiveness | non corrosive |

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. Keep away from moisture. |
| Incompatible groups | Strong acids, oxidising agents. |
| Substance Specific Incompatibility | none known |
| Hazardous decomposition products | May emit toxic vapours if heated to decomposition |
| Hazardous reactions | none known |

11. Toxicological Information

Summary

IF SWALLOWED: Large amounts may cause gastrointestinal irritation, causing nausea and vomiting.

IF IN EYES: dust is irritating to eyes and cause stinging.

IF ON SKIN: dust may dry out the skin.

IF INHALED: fine dust may be irritating to the respiratory tract.

CHRONIC TOXICITY: exposure to borates may affect fertility. Repeated or prolonged exposure to manganese sulphate could result in effects to the lungs and central nervous system

Supporting Data

| | | |
|----------------|---|---|
| Acute | Oral | Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (oral, rat) for the mixture is >5,000 mg/kg. Data considered includes: Ammonium phosphate dibasic 6500mg/kg, Potassium sulphate >5000mg/kg, calcium ammonium nitrate 2000 mg/kg (rat), Zinc sulphate 926mg/kg (mouse), Manganese sulphate monohydrate 782mg/kg (rat). |
| | Dermal | Using LD ₅₀ 's for ingredients, the estimated LD ₅₀ (dermal, rat) for the mixture is >5000 mg/kg. |
| | Inhaled | Using LC ₅₀ 's for ingredients, the calculated LC ₅₀ (inhalation, rat) for the mixture is >5mg/L. Data considered includes: Ammonium phosphate dibasic 8.1mg/L. |
| | Eye | The mixture is considered to be an eye irritant, because some of the ingredients present are considered eye irritants in more concentrated form. |
| | Skin | The mixture is considered to be a skin irritant, because some of the ingredients present are considered skin irritants in more concentrated form. |
| Chronic | Sensitisation | No ingredient present at concentrations > 0.1% is considered a 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 | The mixture is considered to be a suspected reproductive or developmental toxicant, because at least one of the ingredients present in greater than 0.1% is suspected to be a reproductive or developmental toxicant (boric acid, borax). Animal experiments have shown that ingestion of borates at high doses or over prolonged periods may affect the reproductive system in both males and females. |
| | Systemic | The mixture is considered to be a suspected target organ toxicant. Repeated or prolonged exposure to manganese sulphate could result in effects to the lungs and central nervous system |
| | Aggravation of existing conditions | None known. |

12. Ecological Data

Summary

This mixture may be harmful towards aquatic organisms with long lasting effects.

Supporting Data

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|------------------------------------|--|
| Aquatic | Using EC ₅₀ 's for ingredients, the calculated EC ₅₀ for the mixture is between 10 mg/L and 100 mg/L Data considered includes: Ammonium phosphate dibasic 40mg/L (96hr, gammarus pseudolimnaeus), Zinc sulphate 98.77ug/L (96hr, Oncorhynchus mykiss), 0.09877mg/L (48hr, Daphnia hyalina), 0.02469mg/L (5d, Ditylum brightwellii Diatom). |
| Bioaccumulation | No data |
| Degradability | No data |
| Soil | No evidence of soil toxicity. |
| Terrestrial vertebrate | The mixture is not considered as harmful to terrestrial vertebrates. (see acute toxicity) |
| Terrestrial invertebrate | No evidence of ecotoxicity towards terrestrial invertebrates. |
| Biocidal | no data |
| Environmental effect levels | No EELs are available for this mixture or ingredients |

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

There are no specific restrictions for this product (not a dangerous good).

| | | | |
|---------------------|----|------------------------------|----|
| UN number: | NA | Proper shipping name: | NA |
| Class(es) | NA | Packing group: | NA |
| Precautions: | NA | Hazchem code: | NA |

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002521, Animal Nutritional and Animal Care Products Group Standard 2017. 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 > 1000kg is stored. |
| Certified handler | Not required. |
| Tracking | Not required. |
| Bunding & secondary containment | Required if > 1000kg is stored. |
| Signage | Required if > 1000kg is stored. |
| Location compliance certificate | Not required. |
| Flammable zone | Not required. |
| Fire extinguisher | Not required. |

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.

16. Other Information

Abbreviations

| | |
|------------------------|---|
| Approval Code | Approval HSR002521, Animal Nutritional and Animal Care Products Group Standard 2017 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 |
| 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/UEL | Lower Explosive Limit/ Upper 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 (SDS) | Material Safety Data Sheet (or Safety Data Sheet) |
| 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 |
| TWA | Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours) |
| 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, EU ECHA, ingredients SDS's, ChemIDplus |

Review

| Date | Reason for review |
|-------------|--------------------------|
| August 2019 | 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 HSNO 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 9 940 3080.

