

1. CHEMICAL IDENTIFICATION AND COMPANY INFORMATION

Product Identifiers

Product Name: Anderson Basal Salt Mixture
Product Number: A267

Other means of identification

Synonyms: None

Recommended Use For Research/Laboratory Use ONLY

Restrictions on Use Products manufactured by PhytoTechnology Laboratories and supplied by Austratec Pty Ltd are intended for research and laboratory use ONLY. Products are NOT to be used as human or animal therapeutics, cosmetics, agricultural or pesticidal products, food additives, or as household chemicals.

Details of Importer/Supplier

Company: Austratec Pty Ltd, Factory 12/49 Corporate Blvd, Bayswater VIC 3153, AUSTRALIA
Telephone: +61 3 9729 4528
Fax: +61 3 9729 4578
Website: www.austratec.com.au

Emergency phone number 13 11 26 (24 hour – Poisons Information Centre)

2. HAZARD(S) IDENTIFICATION

GHS Classification Oxidizing Solids (Category 3)
Skin Irritation (Category 2)
Serious Eye Damage/Eye Irritation (Category 2/2A)
Specific target organ toxicity, single exposure: Respiratory system (Category 3)

GHS Label elements, including precautionary statements

Pictogram:  Signal Word: **WARNING**

Hazard Statement(s) H272 – May intensify fire; oxidizer.
H315 – Causes skin irritation.
H319 – Causes serious eye irritation.
H335 – May cause respiratory irritation.

Precautionary statement(s)

Prevention: P210 – Keep away from heat.
P220 – Keep/Store away from clothing/combustible materials.
P221 – Take precaution to avoid mixing with combustibles.
P261 – Avoid breathing dust.
P264 – Wash hands thoroughly after handling.
P270 – Do not eat, drink or smoke when using this product

P271 – Use only outdoors or in a well-ventilated area.
P280 – Wear protective gloves/protective clothing/eye protection.

Response: P302 + P352 – IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water. Remove contact lenses if present and easy to do.
Continue rinsing.
P312 – Call a POISON CENTRE or doctor/physician if you feel unwell
P332 + P313 – If skin irritation occurs: Get medical advice/attention.
P337 + P313 – If eye irritation persists: Get medical advice/attention .
P362 – Take off contaminated clothing and wash before reuse.
P370 + P378 – In case of fire: Use water or fire extinguisher for extinction.

Storage: P403 + P233 – Store in a well ventilated place. Keep container tightly closed.
P405 – Store locked up.

Disposal: P501 - Dispose of contents/container to an approved chemical waste disposal plant.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

CAS Number: N/A EC Number: N/A
Formula: N/A Molecular Weight: N/A

This product in a mixture that contains, but is not limited to the following components that may cause harm to the user or environment, or may be suspected to do so.

| INGREDIENT | CAS NUMBER. | PERCENTAGE | HAZARDOUS |
|----------------------------------|-------------|------------|--|
| Ammonium Nitrate | 6484-52-2 | 21.21% | No exposure limits established by OSHA or ACGIH |
| Potassium Nitrate | 7757-79-1 | 25.45% | No exposure limits established by OSHA or ACGIH |
| EDTA, Disodium Salt, Dihydrate | 6381-92-6 | 3.95% | No exposure limits established by OSHA or ACGIH |
| Cobalt Chloride, Hexahydrate | 7791-13-1 | 0.001% | No exposure limits established by OSHA or ACGIH |
| Cupric Sulfate, Pentahydrate | 7758-99-8 | 0.001% | No exposure limits established by OSHA or ACGIH |
| Sodium Molybdate (VI), Dihydrate | 10102-40-6 | 0.01% | OSHA PEL: 5mg (Mo)/m ³ ; ACGIH TLV: 5mg (Mo)/m ³ |
| Manganese Sulfate, Monohydrate | 10034-96-5 | 0.90% | OSHA PEL: 5mg (Mn)/m ³ |
| Potassium Iodide | 7681-11-0 | 0.016% | No exposure limits established by OSHA or ACGIH |
| Boric Acid | 10043-35-3 | 0.33% | No exposure limits established by OSHA or ACGIH |

4. FIRST AID MEASURES

Description of first aid measures

General advice: Consult a doctor/physician. Show this safety data sheet to the doctor in attendance.

Ingestion: MAY CAUSE IRRITATION IF SWALLOWED. If swallowed, wash mouth out with water. Never give anything by mouth to an unconscious person. Seek medical attention.

Inhalation: MAY CAUSE IRRITATION TO RESPIRATORY TRACT. Safely remove person to fresh air. If not breathing, begin cardiopulmonary resuscitation (CPR). If breathing is difficult, ensure clear airway and give oxygen. Seek medical attention.

Eye contact: DIRECT CONTACT MAY CAUSE IRRITATION, REDNESS, TEARING, OR BLURRED VISION. Flush eye out immediately with water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical attention if irritation persists.

Skin contact: MAY CAUSE IRRITATION, REDDENING, ITCHING OR INFLAMATION. Wash area thoroughly with soap and water. Remove and wash contaminated clothing. Seek medical attention.

Most important symptoms and effects, both acute and delayed

See section 2 and/or section 11

Recommendation for immediate medical attention and special treatment needed

5. FIRE FIGHTING MEASURES

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| Suitable extinguishing media | Water spray, carbon dioxide, dry chemical powder, or appropriate foam. Use extinguishing media suitable for surrounding fire. |
| Specific hazards arising from the chemical | |
| Hazardous combustion products: | May emit toxic fumes under fire conditions. |
| Toxic gases produced: | Carbon oxides, nitrogen oxides, sulphur oxides, hydrogen chloride gas, potassium oxides, sodium oxides, cobalt oxides, molybdenum oxides and copper oxides.. |
| Special protective equipment and precaution for firefighters | In the event of fire, wear full protective clothing and NIOSH (US) or EN145 (EU) approved self contained breathing apparatus. Evacuate the area and fight fire from a safe distance. |

6. ACCIDENTAL RELEASE MEASURES

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| Personal precautions, protective equipment and emergency procedures | Use personal protection equipment (PPE) recommended in Section 8. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation especially in confined areas. Evacuate personnel to safe areas. Avoid breathing dust. |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. Do not let product enter drains. |
| Methods and materials for containment and cleanup | Wear suitable protective clothing. Avoid dust formation. Carefully sweep up and remove. Place in a dry container and cover. Remove from area for safe disposal (see section 13). Flush spill area with water. Do not let product enter drain. |

7. HANDLING AND STORAGE

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| Precautions for safe handling | Avoid contact with skin and eyes. Avoid dust formation and aerosols. Avoid incompatible substances. Provide appropriate exhaust ventilation where dust is formed. Wash thoroughly after use. |
| Conditions for safe storage | Keep in a tightly closed container and store in a cool, dry and well ventilated area. Product is hygroscopic, protect from moisture. |
| Recommended Storage Temperature | 2 to 6 °C |
| Incompatibilities | Strong oxidizing agent. |

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure control measures

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| Workplace Exposure Standards (TWA;STEL): | Manganese Sulfate, Monohydrate: | 1mg (Mn)/m ³ ; 3mg (Mn)/m ³ |
| OSHA's permissible exposure limits (PEL's): | Manganese Sulfate, Monohydrate: | 5mg (Mn)/m ³ . |
| | Sodium Molybdate (VI), Dihydrate: | 5mg (Mo)/m ³ . |
| ACGIH threshold limit values (TLV's): | Sodium Molybdate (VI), Dihydrate: | 5mg (Mo)/m ³ . |

Engineering controls Handle in accordance to general industrial hygiene and chemical safety practice.

Personal protective equipment (PPE)

Eye Face Protection: Chemical safety shield, glasses or goggles approved under NIOSH (US) or EN166 (EU). Have eye washing facilities readily available where eye contact can occur.

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| Skin Protection: | Suitable protective gloves. |
| Body Protection: | Lab coat or protective chemical suit. Protective equipment must be selected in accordance to the amount of dangerous substance within the specific workplace. |
| Respiratory Protection: | Use an appropriate dust mask. Use N95 (US) or type P1 (EN143) dust mask where dust level is a nuisance. Appropriate respirator approved under NIOSH (US) or CEN (EU). |

9. PHYSICAL AND CHEMICAL PROPERTIES

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| Appearance | White to off-white powder. |
| Odour | Odorless. |
| Odour threshold | No data available. |
| pH (1.89 g/L) | 3.25 – 4.25. |
| Melting point | No data available |
| Initial boiling point/boiling range | No data available |
| Flash point (closed cup) | No data available. |
| Evaporation rate | No data available. |
| Flammability (solid, gas) | No data available. |
| Flammable limits (upper %) | No data available. |
| Flammable limits (lower %) | No data available. |
| Vapour pressure | No data available. |
| Vapour density | No data available. |
| Relative density | No data available |
| Solubility | Soluble in water. |
| Partition coefficient (n-octanol/water) | No data available. |
| Auto-ignition temperature | No data available. |
| Decomposition temperature | No data available. |
| Viscosity | No data available. |

10. STABILITY AND REACTIVITY

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| Reactivity | No data available. |
| Chemical stability | Stable under normal conditions of use and recommended storage conditions. Product is hygroscopic. |
| Possibility of hazardous reactions | No data available. |
| Conditions to avoid | Moist air, excessive heat. |
| Incompatible materials | Strong oxidizing agents. |
| Hazardous decomposition products | Carbon oxides, nitrogen oxides, sulphur oxides, hydrogen chloride gas, potassium oxides, sodium oxides, cobalt oxides, molybdenum oxides and copper oxides. |

11. TOXICOLOGICAL INFORMATION

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| Acute toxicity | LD ₅₀ (Oral, Rat)(mg/Kg): LD ₅₀ (Oral, Mouse)(mg/Kg): LD ₅₀ (Dermal, Rabbit)(mg/Kg): | No data available. No data available. No data available. |
| Skin corrosion/irritation | No data available | |
| Serious eye damage/irritation | No data available | |
| Respiratory or skin sensitisation | Inhalation and skin contact may cause sensitization. | |
| Germ cell mutagenicity | No data available | |
| Carcinogenicity | NTP: IARC: Z List: OSHA Reg: | No No No No |
| Reproductive toxicity | No data available. | |
| Specific target organ toxicity (STOT) | Single Exposure: Repeated Exposure: | No data available No data available |
| Aspiration hazard | No data available | |
| Target organs | None identified. | |
| Medical conditions aggravated by exposure | No data available | |
| Routes of entry | Inhalation, ingestion, mouth, skin and eyes. | |
| Symptoms associated with overexposure | Irritation, sneezing, gastrointestinal upset. | |
| NIOSH/RTECS No. | Not listed. | |

The toxicological properties of this product have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

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|--------------------------------------|-------------------|
| Ecotoxicity | No data available |
| Persistence and degradability | No data available |
| Bioaccumulative potential | No data available |
| Mobility in soil | No data available |
| Other adverse effects | No data available |

13. DISPOSAL CONSIDERATIONS

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| Disposal procedure | Dispose in accordance with all applicable government, state, and environmental chemical safety practices. |
| EPA hazardous waste number | No data available. |

14. TRANSPORT INFORMATION

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|---------------------------------------|------------------------------------|
| UN number | ADG: N/A IMDG: N/A IATA: N/A |
| Proper shipping/technical name | CHEMICALS, N.O.S. (NON-REGULATED) |
| Hazard Class | N/A |
| Packing group | N/A |
| Environmental hazards | N/A |
| Special precautions | N/A |
| Hazchem | N/A |

15. REGULATORY INFORMATION

Notification Status

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|----------------------|--|
| Australia (AICS): | Not Listed |
| New Zealand (NZIoC): | Not determined |
| USA (TSCA): | Not Listed |
| SARA TITLE III: | Section 302 (EHS) Ingredients: No Section 313 Ingredients: No Section 304 (EHS/CERCLA) Ingredients: No Section 311/312 Hazard: Chronic health hazard. |

16. OTHER INFORMATION

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|--------------|--------------------|----------------------------|------------------------|----------------------|
| HMIS Rating: | Health Hazard 2 | Chronic Health Hazard * | Flammability 0 | Physical Hazard 2 |
| NFPA Rating: | Health Hazard 2 | Fire Hazard 0 | Reactivity Hazard 2 | Special Hazard OX |

*Chronic Hazard: Chronic (long-term) health effects may result from repeated overexposure.

OX: Oxidiser

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