

Alpha Concepts**Issued: March 2025**

Product name: AlphaNutrients

Classified as hazardous.

Section 1: Identification of the material and supplier

Product name	AlphaNutrients
Supplier name	Alpha Concepts Pty Ltd
Address	4 Helen Street, Gladstone QLD 4680 Australia
Telephone	04 0976 1922
Emergency contact number	04 0976 1922 (general information)
Recommended use	Addition to biological water treatment plant systems.
Other information	Business hours: 7.30am to 4.00pm, Monday to Friday.

Alpha Concepts recommends consultation on the suitability of this product before commencing use.

Section 2 Hazards identification

Hazard classification	Classified as hazardous according to criteria of SWA: HAZARDOUS SUBSTANCE DANGEROUS GOODS
Hazard Statement	H302 Harmful if swallowed H317 May cause an allergic skin reaction. H318 Causes serious eye damage H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H341 Suspected of causing genetic defects. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects R42 May cause sensitisation by inhalation R43 May cause sensitisation by skin contact
Prevention	P201 Obtain special instructions before use P264 Wash 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
Response	P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

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 for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P330 Rinse mouth.
 P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor

Section 3 Composition/information on ingredients

Chemical characterisation

Solid

Ingredients

<i>Name</i>	<i>Proportion</i>	<i>CAS #</i>
Calcium sulphate	<10%	10101-41-4
Cobalt (II) sulphate heptahydrate	10-20%	10026-24-1
Copper (II) sulphate pentahydrate	10-30%	7758-99-8
Potassium permanganate	<10%	7722-64-7
Potassium dihydrogen orthophosphate anhydrous	<10%	7778-77-0
Magnesium sulphate	<10%	10034-99-8
Manganese sulphate monohydrate	<10%	10034-96-5
Sodium molybdate	10-30%	10102-40-6
Sodium carbonate decahydrate	<10%	6132-02-1
Zinc sulphate	10-30%	7446-20-0

Section 4 First aid measures

Inhalation	Remove the source of contamination or move the victim to fresh air. Ensure airways are clear have qualified person give oxygen through a face mask if breathing is difficult. If the symptoms develop give medical attention.
Ingestion	Rinse mouth thoroughly with water immediately. Do not induce vomiting. Give plenty of water to drink. Seek medical attention.
Skin	Wash affected areas with copious quantities of water immediately. Remove contaminated clothing and wash before re-use. Seek medical attention.
Eye	Immediately irrigate with copious amounts of water for at least 15minutes. Eyelids to be held open. Seek medical attention.
Advice to Doctor	Consult Poisons Information Centre.
Other Information	For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26) or a doctor.

Section 5 Fire fighting measures

Hazards from combustion products	May liberate toxic fumes in fire- oxides of sulfuret, copper, carbon, sodium, potassium and manganese. Also may liberate copper fume, oxygen, and potassium hydroxide.
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	May accelerate burning when involved in a fire. May explode from heating, may react explosively with hydrocarbons (fuels). Fire or heat may produce irritating, poisonous and/or corrosive gases. Containers may explode when heated. Runoff may pollute waterways.
Suitable extinguishing media	Small fire: Use flooding quantities of water. Large fire: Use water spray, fog or foam. Do not use water jets. If safe to do so, move undamaged containers from the fire area. Cool containers with flooding quantities of water until well after the fire is out. Avoid getting water inside the containers.
Precautions for fire fighters and special protective equipment	Wear SCBA and chemical splash suit. Fully encapsulating, gas-tight suits should be worn for maximum protection. The use of fire extinguishers of the chlorinated hydrocarbon type is not recommended, as toxic products will probably be produced by the decomposition of the extinguishing medium when it comes into contact with hot manganese compounds.

Section 6 Accidental release measures

Do not touch or walk through a spilled material. Prevent entry into waterways, drains, confined areas. Prevent dust cloud. Absorb with earth, sand or other non-combustible material. Use clean non-sparking tools to collect material and place it into loosely-covered plastic containers for later disposal. Do not get water inside containers.

Avoid inhalation, contact with skin, eyes and clothing.

Seek expert advice on handling and disposal.

Section 7 Handling and storage

Precautions for safe handling	Avoid generation or accumulation of dusts. Use with adequate ventilation; in case of insufficient ventilation wear suitable respiratory equipment. Wear appropriate protective equipment to prevent inhalation, skin and eye contact. Wash hands and face thoroughly after working with material. Do not empty into drains. Keep away from heat and source of ignition.
Precautions for safe storage	Store in a cool, dry, well-ventilated place away from ignition sources, strong acids, strong bases, oxidising agents, foodstuffs and clothing. Keep containers closed when not in use. Keep dry.
Corrosiveness	Corrodes aluminium and zinc. Solutions are corrosive to steel.

Section 8 Exposure controls/personal protection

National exposure standards	No exposure standard allocated
Biological limit values	No biological limit allocated

Engineering controls	Use only in well-ventilated area with appropriate personal protective equipment.
Respiratory protection	Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust.
Eye/face protection	The use of a face shield, chemical goggles or safety glasses with side shield protection should be worn.
Hand protection	Gloves are required when handling this material. Excellent: NR latex, vinyl and neoprene. Fail: nitrile rubber gloves.
Body protection	Clean clothing or protective clothing should be worn. Long sleeves, trousers and closed-in footwear are recommended.
Hygiene measures	Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-use.

Section 9 Physical and chemical properties

Appearance	White, blue or purple crystalline solid
Odour	Not available
pH	Not available
Vapour pressure	Not available
Vapour density	Not available
Boiling point	Not available
Freezing point	Not available
Solubility	Not available
Specific gravity	Not available

Section 10 Stability and reactivity

Chemical stability	Stable under normal storage and handling conditions
Conditions to avoid	Avoid heat, flames, sources of ignition, dust generation, and incompatible materials.
Incompatible materials	This product is incompatible with strong acids and bases, combustible materials, oxidising agents. May corrode aluminium and zinc. Solutions are corrosive to steel.
Hazardous decomposition products	In fire may liberate toxic fumes in fire- oxides of sulfuret, copper, carbon, sodium, potassium and manganese. Also may liberate copper fume, oxygen, and potassium hydroxide.
Hazardous reactions	Not available

Section 11 Toxicological information

Inhalation	Causes irritation to the respiratory tract with possible burns. Symptoms may include coughing, chills, shortness of breath, nausea and vomiting. The lowest exposure concentration of manganese at which early effects on the CNS and the lungs may occur are unknown, but once neurological signs are present they tend to continue and worsen after exposure ends. High concentrations can cause a build-up of fluid in the
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lungs (pulmonary oedema) that might be fatal in severe cases. Repeated exposure may cause asthma, respiratory hypersensitivity and chronic pulmonary effects (pulmonary fibrosis and pulmonary edema). Copper sulphate may cause ulceration and perforation of respiratory tract. Ulceration of the nasal septum is possible.

Ingestion

Toxic if swallowed. Destructive to the tissue of mucous membranes lining the digestive tract. Ingestion of low concentrations (up to 1%) of potassium permanganate may cause burning of the throat, nausea, vomiting and abdominal pain, 2-3% causes enama and swelling of the throat, 4-5% may cause liver damage. May cause central nervous system effects. May cause mild hypertension, rash and tinnitus (ringing in the ears), diarrhoea, loss of appetite and a decrease in body temperature and blood pressure. Can cause blood damage. If vomiting does not occur immediately, systemic copper poisoning may occur (symptoms include repeated vomiting, nausea, diarrhea, salivation, headache, cold sweat, weak pulse, and metallic taste). Prolonged exposure may lead to corrosion and necrosis of the gastrointestinal tract, with possible perforation. Copper poisoning leads to capillary damage, kidney and liver damage, central nervous excitation followed by depression, jaundice, convulsions, blood effects, paralysis and coma. If elimination is blocked by bowel blockage or other reasons, magnesium may be absorbed with symptoms including abdominal pain, vomiting, diarrhoea, flushing of the skin, thirst and hypotension. Prolonged or repeated exposure to sodium carbonate may be corrosive on the gastrointestinal tract with symptoms including severe abdominal pain, vomiting, diarrhoea, possible circulatory collapse and death.

Skin

May cause sensitisation by skin contact. Risk of absorption. May cause skin irritation, redness, itching, pain, severe burns, brown stains in contact area, possible hardening of outer skin layer, dermatitis and tinnitus (ringing in the ears). Contact of sodium molybdate to wet skin may cause a rash which is difficult to heal; may be harmful if absorbed through the skin.

Eye

Eye contact with crystals and dust may cause irritation, redness, pain, blurred vision, inflammation, conjunctivitis, ulceration, clouding of the cornea, tissue destruction, corneal opacity and adhesion of the eyelid to the eye. Contact with sodium carbonate may be corrosive to the eyes, causing conjunctival edema and corneal destruction; risk of severe injury increases if eyes are kept tightly closed. May cause burns, chemical conjunctivitis and corneal damage.

Chronic health effects

Long-term exposure to high concentrations of dust may cause increased mucous flow in the nose and airways (this symptom usually disappears after ceasing exposure). Repeated or prolonged exposure to massive concentrations of dust may cause lung injury by obstruction as well as impaired sense of smell and taste and bleeding nose. Large amounts of cobalt chloride depress erythrocyte production, which may lead to death in children; other effects may include cutaneous flushing, chest pain, nerve deafness, respiratory hypersensitivity, pulmonary fibrosis, pulmonary edema, thyroid hyperplasia, polycythemia, goiter, eczema, myxedema and congestive heart failure. Chronic ingestion of copper sulphate may cause liver, brain, muscle and kidney dysfunction. Repeated or prolonged exposure skin contact with sodium carbonate may cause chronic dermatitis and/or ulceration of the skin and sensitisation. Repeated or prolonged exposure to zinc oxide via dust inhalation or ingestion may cause an increased pulse, blood pressure decrease, acute pulmonary

edema/bronchitis/pneumonia with bluish skin, metal fume fever (symptoms metallic taste, thirst, coughing, weakness, muscular pain and nausea followed by fever and chills). The latter conditions usually disappear after exposure to material ceases.

Section 12 Ecological information

Product is toxic to aquatic life. Do not allow product to enter drains, sewers and waterways.

Section 13 Disposal considerations

Whatever cannot be saved for recovery or recycling should be disposed of according to the relevant local, state and federal government regulations.

Section 14 Transport information

UN number	Not available
UN proper shipping name	Not available
Class and subsidiary risks	This product is a mixture and contains Class 9, Class 5.1 and Class 6 dangerous goods. Information on their transportation risks are provided below. Dangerous goods of Class 9 Miscellaneous Dangerous Goods are incompatible in a placard load with dangerous goods of Class 1, and Class 5 if the Class 9 goods are fire risk substances. Dangerous goods of Class 5.1 Oxidising Agents are incompatible in a placard load with any of Class 2.1, Class 2.3, Class 3, Class 4, Class 7, Class 8, fire risk substances and combustible liquids. Dangerous goods of Class 6 are incompatible in a placard of Class 1, Class 3 (nitromethane), Class 8 (where Class 6 goods are cyanides and Class 8 goods are acids), food and food packaging.
Packing group	Not available
Hazchem code	Not available

Section 15 Regulatory information

Regulatory information	Not listed
Poisons Schedule	Not listed

Section 16 Other information

Contact person	Darrin Marxsen ph. 04 0976 1922 DISCLAIMER STATEMENT: All information provided here has been compiled to the best of our knowledge. As the conditions of handling and use are beyond our control, we make no warranty with respect to the completeness or accuracy of the information contained within. Alpha Concepts accept no responsibility for its accuracy or for any results that may be
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**Literature
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National Occupational Health and Safety Commission, 2016, *National Code of Practice for the preparation of material safety data sheets*
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END OF SDS