

# Metalosate Potassium Amino Acid Soluble Powder

Albion Laboratories, Inc a Balchem Company

Chemwatch Hazard Alert Code: 2

Catalogue number: 08730

Version No: 1.4.au

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Issue Date: 14/10/25

S.GHS.USA.EN

## SECTION 1 IDENTIFICATION

### Product Identifier

Product name	Metalosate Potassium Amino Acid Soluble Powder
Other means of identification	08730

### Recommended use of the chemical and restrictions on use

Relevant identified uses	Organic Mineral Foliar Supplement
--------------------------	-----------------------------------

### Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party Manufacturer details

Registered company name	Albion Laboratories, Inc a Balchem Company
Address	67 South Main Street, Layton, Utah 84041 USA United States
Website	<a href="http://www.AlbionMinerals.com">www.AlbionMinerals.com</a>
Email	<a href="mailto:SDS@Balchem.com">SDS@Balchem.com</a>

### Importer details

Registered company name	Chemseed Pty Ltd
Address	Units 7-8, Warehouse J, Flemngton Markets, NSW 2129
Website	<a href="http://www.metalosate.com.au">www.metalosate.com.au</a>
Email	<a href="mailto:info@metalosate.com.au">info@metalosate.com.au</a>

### Emergency phone number

Association / Organisation	Chemtrec # 2275
Emergency telephone numbers	+1 800-424-9300 (USA)
Other emergency telephone numbers	+1 703-527-3887 (International)

## SECTION 2 HAZARD(S) IDENTIFICATION

### Classification of the substance or mixture



Note: The hazard category numbers found in GHS classification in section 2 of this SDSs are NOT to be used to fill in the NFPA 704 diamond. Blue = Health Red = Fire Yellow = Reactivity White = Special (Oxidizer or water reactive substances)

Classification	Skin Corrosion/Irritation Category 2, Eye Irritation Category 2A
----------------	--

### Label elements

Hazard pictogram(s)	
---------------------	--

SIGNAL WORD	<b>WARNING</b>
-------------	----------------

### Hazard statement(s)

H315	Causes skin irritation.
H319	Causes serious eye irritation.

### Hazard(s) not otherwise specified

Not Applicable

### Precautionary statement(s) Prevention

Continued...

---

**P280** | Wear protective gloves/protective clothing/eye protection/face protection.

---

**Precautionary statement(s) Response**

---

**P362** | Take off contaminated clothing and wash before reuse.

---

## Metasate Potassium Amino Acid Soluble Powder

<b>P305+P351+P338</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>P337+P313</b>	If eye irritation persists: Get medical advice/attention.
<b>P302+P352</b>	IF ON SKIN: Wash with plenty of soap and water.
<b>P332+P313</b>	If skin irritation occurs: Get medical advice/attention.

### Precautionary statement(s) Storage

Not Applicable

### Precautionary statement(s) Disposal

Not Applicable

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

### Substances

See section below for composition of Mixtures

### Mixtures

CAS No	%[weight]	Name
7778-80-5	1-40	<u>potassium sulfate</u>
9010-10-0	1-40	<u>soy protein</u>

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

## SECTION 4 FIRST-AID MEASURES

### Description of first aid measures

<b>Eye Contact</b>	Generally not applicable.
<b>Skin Contact</b>	If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation. Generally not applicable.
<b>Inhalation</b>	If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor, without delay. Generally not applicable.
<b>Ingestion</b>	Generally not applicable.

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

See Section 11

### Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5 FIRE-FIGHTING MEASURES

### Extinguishing media

- ▶ Foam.
- ▶ Dry chemical powder.
- ▶ BCF (where regulations permit).
- ▶ Carbon dioxide.
- ▶ Water spray or fog - Large fires only.

### Special hazards arising from the substrate or mixture

<b>Fire Incompatibility</b>	▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result
-----------------------------	--

### Special protective equipment and precautions for fire-fighters

<b>Fire Fighting</b>	<ul style="list-style-type: none"><li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li><li>▶ Wear breathing apparatus plus protective gloves.</li><li>▶ Prevent, by any means available, spillage from entering drains or water courses.</li><li>▶ Use water delivered as a fine spray to control fire and cool adjacent area.</li><li>▶ <b>DO NOT</b> approach containers suspected to be hot.</li><li>▶ Cool fire exposed containers with water spray from a protected location.</li><li>▶ If safe to do so, remove containers from path of fire.</li><li>▶ Equipment should be thoroughly decontaminated after use.</li></ul> Slight hazard when exposed to heat, flame and oxidisers.
----------------------	--

**Metalosate Potassium Amino Acid Soluble Powder**

<b>Fire/Explosion Hazard</b>	<p>Combustible. Will burn if ignited.                  Combustion products include:                  carbon monoxide (CO)                  carbon dioxide (CO<sub>2</sub>)                  hydrogen cyanide                  nitrogen oxides (NO<sub>x</sub>)                  sulfur oxides (SO<sub>x</sub>)                  other pyrolysis products typical of burning organic material.                  May emit poisonous fumes.                  May emit corrosive fumes.                  Articles and manufactured articles may constitute a fire hazard where polymers form their outer layers or where combustible packaging remains in place.                  Certain substances, found throughout their construction, may degrade or become volatile when heated to high temperatures. This may create a secondary hazard.</p>
------------------------------	---

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

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

See section 8

**Environmental precautions**

See section 12

**Methods and material for containment and cleaning up**

<b>Minor Spills</b>	<p>Clean up all spills immediately.                  Secure load if safe to do so.                  Bundle/collect recoverable product.                  Collect remaining material in containers with covers for disposal.</p>
<b>Major Spills</b>	<p>Minor hazard.                  Clear area of personnel.                  Alert Fire Brigade and tell them location and nature of hazard.                  Control personal contact with the substance, by using protective equipment as required.                  Prevent spillage from entering drains or water ways.                  Contain spill with sand, earth or vermiculite.                  Collect recoverable product into labelled containers for recycling.                  Absorb remaining product with sand, earth or vermiculite and place in appropriate containers for disposal.                  Wash area and prevent runoff into drains or waterways.                  If contamination of drains or waterways occurs, advise emergency services.                  Clean up all spills immediately.                  Wear protective clothing, safety glasses, dust mask, gloves.                  Secure load if safe to do so. Bundle/collect recoverable product.                  Use dry clean up procedures and avoid generating dust.                  Vacuum up (consider explosion-proof machines designed to be grounded during storage and use).                  Water may be used to prevent dusting.                  Collect remaining material in containers with covers for disposal.                  Flush spill area with water.</p>

Personal Protective Equipment advice is contained in Section 8 of the SDS.

**SECTION 7 HANDLING AND STORAGE**

**Precautions for safe handling**

<b>Safe handling</b>	<p>Avoid all personal contact, including inhalation.                  Wear protective clothing when risk of exposure occurs.                  Use in a well-ventilated area.                  Prevent concentration in hollows and sumps.  <b>DO NOT enter confined spaces until atmosphere has been checked.</b>  <b>DO NOT allow material to contact humans, exposed food or food utensils.</b>                  Avoid contact with incompatible materials.                  When handling, <b>DO NOT eat, drink or smoke.</b>                  Keep containers securely sealed when not in use.                  Avoid physical damage to containers.                  Always wash hands with soap and water after handling.                  Work clothes should be laundered separately. Launder contaminated clothing before re-use.                  Use good occupational work practice.                  Observe manufacturer's storage and handling recommendations contained within this SDS.                  Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.</p>
<b>Other information</b>	<p>Store away from incompatible materials.</p>

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

<b>Suitable container</b>	<p>Generally packaging as originally supplied with the article or manufactured item is sufficient to protect against physical hazards.                  If repackaging is required ensure the article is intact and does not show signs of wear. As far as is practicably possible, reuse the original packaging or something providing a similar level of protection to both the article and the handler.</p>
---------------------------	--

**Metalosate Potassium Amino Acid Soluble Powder**

**Storage incompatibility**

It is suggested that crystalline proteins are explosive as evidenced by the easily induced shattering of microcrystals. This may be a consequence of the implosive collapse of a metastable ordering of molecules (Bretherick's Handbook of Reactive Chemical Hazards). A study was performed to obtain quantitative data on the nature and yields of oxidation products formed by a prototypic oxidant system (HO• /O<sub>2</sub>) on small peptides, including Val-Gly-Val-Ala-Pro-Gly. Study results indicated that hydroperoxide formation occurred nonrandomly (Pro > Val > Ala > Gly) and that the formation of hydroperoxide was inversely related to carbonyl yields (both peptide-bound and released). Multiple alcohols were generated at both side-chain and backbone sites. Summation of the product concentrations provided clear evidence for the occurrence of chain reactions in peptides exposed to HO• /O<sub>2</sub>, with the overall product yields exceeding that of the initial HO• generated.

- ▶ Avoid reaction with oxidising agents

**SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Control parameters**

**OCCUPATIONAL EXPOSURE LIMITS (OEL)**

**INGREDIENT DATA**

Not Available

**EMERGENCY LIMITS**

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
potassium sulfate	Potassium sulfate (2:1); (Dipotassium sulfate)	20 mg/m <sup>3</sup>	220 mg/m <sup>3</sup>	1,300 mg/m <sup>3</sup>

  

Ingredient	Original IDLH	Revised IDLH
potassium sulfate	Not Available	Not Available
soy protein	Not Available	Not Available

**Exposure controls**

**Appropriate engineering controls**

Articles or manufactured items, in their original condition, generally don't require engineering controls during handling or in normal use. Exceptions may arise following extensive use and subsequent wear, during recycling or disposal operations where substances, found in the article, may be released to the environment.

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are:

- Process controls which involve changing the way a job activity or process is done to reduce the risk.
- Enclosure and/or isolation of emission source which keeps a selected hazard 'physically' away from the worker and ventilation that strategically 'adds' and 'removes' air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.
- Employers may need to use multiple types of controls to prevent employee overexposure.

General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in special circumstances. If risk of overexposure exists, wear approved respirator. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection. Provide adequate ventilation in warehouses and enclosed storage areas. Air contaminants generated in the workplace possess varying 'escape' velocities which, in turn, determine the 'capture velocities' of fresh circulating air required to effectively remove the contaminant.

Type of Contaminant:	Air Speed:
solvent, vapours, degreasing etc., evaporating from tank (in still air).	0.25-0.5 m/s (50-100 f/min)
aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min.)
grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion)	2.5-10 m/s (500-2000 f/min.)

Within each range the appropriate value depends on:

Lower end of the range	Upper end of the range
1: Room air currents minimal or favourable to capture	1: Disturbing room air currents
2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity
3: Intermittent, low production.	3: High production, heavy use
4: Large hood or large air mass in motion	4: Small hood-local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

**Personal protection**



**Metalosate Potassium Amino Acid Soluble Powder**

<b>Eye and face protection</b>	Safety glasses with side shields. Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or nationalequivalent] No special equipment required due to the physical form of the product.
<b>Skin protection</b>	See Hand protection below
<b>Hands/feet protection</b>	Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber No special equipment required due to the physical form of the product.
<b>Body protection</b>	See Other protection below
<b>Other protection</b>	Overalls. P.V.C. apron. Barrier cream. Skin cleansing cream. Eye wash unit.

**Respiratory protection**

Not Applicable

Respiratory protection not normally required due to the physical form of the product.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

<b>Appearance</b>	reddish to purplish brown powder		
<b>Physical state</b>	article	<b>Relative density (Water = 1)</b>	Not Available
<b>Odour</b>	Not Available	<b>Partition coefficient n-octanol / water</b>	Not Available
<b>Odour threshold</b>	Not Available	<b>Auto-ignition temperature (°C)</b>	Not Available
<b>pH (as supplied)</b>	3-6	<b>Decomposition temperature</b>	Not Available
<b>Melting point / freezing point (°C)</b>	Not Available	<b>Viscosity (cSt)</b>	Not Available
<b>Initial boiling point and boiling range (°C)</b>	Not Available	<b>Molecular weight (g/mol)</b>	Not Available
<b>Flash point (°C)</b>	Not Available	<b>Taste</b>	Not Available
<b>Evaporation rate</b>	Not Available	<b>Explosive properties</b>	Not Available
<b>Flammability</b>	Not Available	<b>Oxidising properties</b>	Not Available
<b>Upper Explosive Limit (%)</b>	Not Available	<b>Surface Tension (dyn/cm or mN/m)</b>	Not Available
<b>Lower Explosive Limit (%)</b>	Not Available	<b>Volatile Component (%vol)</b>	Not Available
<b>Vapour pressure (kPa)</b>	Not Available	<b>Gas group</b>	Not Available
<b>Solubility in water (g/L)</b>	Immiscible	<b>pH as a solution (1%)</b>	Not Available
<b>Vapour density (Air = 1)</b>	Not Available	<b>VOC g/L</b>	Not Available

**SECTION 10 STABILITY AND REACTIVITY**

<b>Reactivity</b>	See section 7
<b>Chemical stability</b>	Product is considered stable and hazardous polymerisation will not occur.
<b>Possibility of hazardous reactions</b>	See section 7
<b>Conditions to avoid</b>	See section 7
<b>Incompatible materials</b>	See section 7
<b>Hazardous decomposition products</b>	See section 5

**SECTION 11 TOXICOLOGICAL INFORMATION**

**Information on toxicological effects**

<b>Inhaled</b>	The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.
<b>Ingestion</b>	The material has <b>NOT</b> been classified by EC Directives or other classification systems as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence.

**Metalosate Potassium Amino Acid Soluble Powder**

<b>Skin Contact</b>	<p>This material can cause inflammation of the skin on contact in some persons.                  The material may accentuate any pre-existing dermatitis condition                  Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions.                  Open cuts, abraded or irritated skin should not be exposed to this material                  Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.</p>
<b>Eye</b>	<p>This material can cause eye irritation and damage in some persons.</p>
<b>Chronic</b>	<p>Long-term exposure to respiratory irritants may result in airways disease, involving difficulty breathing and related whole-body problems.                  Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.                  Dusts produced by proteins can sometimes sensitise workers like other foreign bodies. Symptoms include asthma appearing soon after exposure, with wheezing, narrowing of the airways and breathing difficulties.                  Exposure to small quantities may induce hypersensitivity reactions characterised by acute bronchospasm, hives (urticaria), deep dermal wheals (angioneurotic oedema), running nose (rhinitis) and blurred vision. Anaphylactic shock and skin rash (non-thrombocytopenic purpura) may occur.</p>

<b>Metalosate Potassium Amino Acid Soluble Powder</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Not Available	Not Available
<b>potassium sulfate</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>	Not Available
	Oral (rat) LD50: >2000 mg/kg <sup>[1]</sup>	
<b>soy protein</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Not Available	Not Available

**Legend:** 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.\* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

<b>Metalosate Potassium Amino Acid Soluble Powder</b>	<p>Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. On the other hand, industrial bronchitis is a disorder that occurs as a result of exposure due to high concentrations of irritating substance (often particles) and is completely reversible after exposure ceases. The disorder is characterized by difficulty breathing, cough and mucus production.</p>
<b>POTASSIUM SULFATE</b>	<p>For sodium sulfate:                  The acute toxicity of sodium sulfate has not been established, but existing data indicate very low acute toxicity. Very high doses cause severe diarrhoea. Sodium sulfate is not irritating to the skin, and only slightly irritating to the eyes. It is highly unlikely to cause sensitizing effects.                  There is no data regarding genetic toxicity except for a single negative test. There is no data regarding cancer-causing potential or reproductive toxicity.</p>
<b>SOY PROTEIN</b>	<p>No significant acute toxicological data identified in literature search.</p>

<b>Acute Toxicity</b>	⊖	<b>Carcinogenicity</b>	⊖
<b>Skin Irritation/Corrosion</b>	✓	<b>Reproductivity</b>	⊖
<b>Serious Eye Damage/Irritation</b>	✓	<b>STOT - Single Exposure</b>	⊖
<b>Respiratory or Skin sensitisation</b>	⊖	<b>STOT - Repeated Exposure</b>	⊖
<b>Mutagenicity</b>	⊖	<b>Aspiration Hazard</b>	⊖

**Legend:** ✗ – Data available but does not fill the criteria for classification  
 ✓ – Data available to make classification  
 ⊖ – Data Not Available to make classification

**SECTION 12 ECOLOGICAL INFORMATION**

**Toxicity**

<b>Metalosate Potassium Amino Acid Soluble Powder</b>	<b>ENDPOINT</b>	<b>TEST DURATION (HR)</b>	<b>SPECIES</b>	<b>VALUE</b>	<b>SOURCE</b>
	Not Available	Not Available	Not Available	Not Available	Not Available
<b>potassium sulfate</b>	<b>ENDPOINT</b>	<b>TEST DURATION (HR)</b>	<b>SPECIES</b>	<b>VALUE</b>	<b>SOURCE</b>
	LC50	96	Fish	680mg/L	4
	EC50	48	Crustacea	=890mg/L	1
	EC50	72	Algae or other aquatic plants	=2900mg/L	1

**Metalosate Potassium Amino Acid Soluble Powder**

soy protein	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	Not Available	Not Available	Not Available	Not Available	Not Available

**Legend:** Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

**For Inorganic Sulfate:**

Environmental Fate - Sulfates can produce a laxative effect at concentrations of 1000 - 1200 mg/liter, but no increase in diarrhea, dehydration or weight loss. The presence of sulfate in drinking-water can also result in a noticeable taste. Sulfate may also contribute to the corrosion of distribution systems. No health-based guideline value for sulfate in drinking water is proposed.

Atmospheric Fate: Sulfates are removed from the air by both dry and wet deposition processes. Wet deposition processes including rain-out (a process that occurs within the clouds) and washout (removal by precipitation below the clouds) which contribute to the removal of sulfate from the atmosphere.

Terrestrial Fate: Soil - In soil, the inorganic sulfates can adsorb to soil particles or leach into surface water and groundwater. Plants - Sodium sulfate is not very toxic to terrestrial plants however; sulfates can be taken up by plants and be incorporated into the parenchyma of the plant. Some plants (e.g. corn and Kochia Scoparia) are capable of accumulating sulfate to concentrations that are potentially toxic to ruminants. Jack pine are the most sensitive plant species.

Aquatic Fate: Sulfate in water can also be reduced by sulfate bacteria (Thiobacilli) which use them as a source of energy. In anaerobic environments sulfate is biologically reduced to (hydrogen) sulfide by sulfate reducing bacteria, or incorporated into living organisms as source of sulfur. Sodium sulfate is not reactive in aqueous solution at room temperature. Sodium sulfate will completely dissolve, ionize and distribute across the entire planetary 'aquasphere'. Some sulfates may eventually be deposited with the majority of sulfates participating in the sulfur cycle in which natural and industrial sodium sulfates are not distinguishable.

Ecotoxicity: Significant bioconcentration or bioaccumulation is not expected. Algae are the most sensitive to sodium sulfate and toxicity occurs in bacteria from 2500mg/L. Sulfates are not acutely toxic to fish or invertebrates. Daphnia magna water fleas and fathead minnow appear to be the least sensitive species. Activated sludge showed a very low sensitivity to sodium sulfate. Overall it can be concluded that sodium sulfate has no acute adverse effect on aquatic and sediment dwelling organisms. No data were found for long term toxicity.

Proteins are generally easily biodegradable.  
**DO NOT discharge into sewer or waterways.**

**Persistence and degradability**

Ingredient	Persistence: Water/Soil	Persistence: Air
	No Data available for all ingredients	No Data available for all ingredients

**Bioaccumulative potential**

Ingredient	Bioaccumulation
	No Data available for all ingredients

**Mobility in soil**

Ingredient	Mobility
	No Data available for all ingredients

**SECTION 13 DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

Product / Packaging disposal	Disposal Instructions
	<ul style="list-style-type: none"> <li>· Recycle wherever possible or consult manufacturer for recycling options.</li> <li>· Consult State Land Waste Management Authority for disposal.</li> <li>▶ <b>DO NOT allow wash water from cleaning or process equipment to enter drains.</b></li> <li>▶ It may be necessary to collect all wash water for treatment before disposal.</li> <li>▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li> <li>▶ Where in doubt contact the responsible authority.</li> <li>▶ Recycle wherever possible or consult manufacturer for recycling options.</li> <li>▶ Consult State Land Waste Authority for disposal.</li> <li>▶ Bury or incinerate residue at an approved site.</li> <li>▶ Recycle containers if possible, or dispose of in an authorised landfill.</li> </ul>

**SECTION 14 TRANSPORT INFORMATION**

**Labels Required**

Marine Pollutant	NO

**Land transport (DOT): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

**Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

**Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

**Transport in bulk according to Annex II of MARPOL and the IBC code**

Not Applicable

**SECTION 15 REGULATORY INFORMATION**

**Safety, health and environmental regulations / legislation specific for the substance or mixture**

POTASSIUM SULFATE(7778-80-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS



**Metalosate Potassium Amino Acid Soluble Powder**

US - California OEHH/ARB - Acute Reference Exposure Levels and Target Organs (RELs) US TSCA Chemical Substance Inventory - Interim List of Active Substances  
 US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

**SOY PROTEIN(9010-10-0) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory US TSCA Chemical Substance Inventory - Interim List of Active Substances

**Federal Regulations**

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**SECTION 311/312 HAZARD CATEGORIES**

Flammable (Gases, Aerosols, Liquids, or Solids)	No
Gas under pressure	No
Explosive	No
Self-heating	No
Pyrophoric (Liquid or Solid)	No
Pyrophoric Gas	No
Corrosive to metal	No
Oxidizer (Liquid, Solid or Gas)	No
Organic Peroxide	No
Self-reactive	No
In contact with water emits flammable gas	No
Combustible Dust	No
Carcinogenicity	No
Acute toxicity (any route of exposure)	No
Reproductive toxicity	No
Skin Corrosion or Irritation	Yes
Respiratory or Skin Sensitization	No
Serious eye damage or eye irritation	Yes
Specific target organ toxicity (single or repeated exposure)	No
Aspiration Hazard	No
Germ cell mutagenicity	No
Simple Asphyxiant	No

**US. EPA CERCLA HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES (40 CFR 302.4)**

None Reported

**State Regulations**

**US. CALIFORNIA PROPOSITION 65**

None Reported

**National Inventory Status**

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
Canada - NDSL	N (soy protein; potassium sulfate)
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	N (soy protein)
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	Y
USA - TSCA	Y
<b>Legend:</b>	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

**SECTION 16 OTHER INFORMATION**

<b>Revision Date</b>	05/07/2018
<b>Initial Date</b>	05/07/2018

**Other information**

**Ingredients with multiple cas numbers**

## Metalsate Potassium Amino Acid Soluble Powder

Name	CAS No
soy protein	9010-10-0, 68153-28-6

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

### Definitions and abbreviations

PC—TWA: Permissible Concentration-Time Weighted Average  
PC—STEL: Permissible Concentration-Short Term Exposure Limit  
IARC: International Agency for Research on Cancer  
ACGIH: American Conference of Governmental Industrial Hygienists  
STEL: Short Term Exposure Limit  
TEEL: Temporary Emergency Exposure Limit  
IDLH: Immediately Dangerous to Life or Health Concentrations  
OSF: Odour Safety Factor  
NOAEL :No Observed Adverse Effect Level  
LOAEL: Lowest Observed Adverse Effect Level  
TLV: Threshold Limit Value  
LOD: Limit Of Detection  
OTV: Odour Threshold Value  
BCF: BioConcentration Factors  
BEI: Biological Exposure Index

Powered by AuthorITe, from Chemwatch.