AuSaMicS™ Life Science

SAFETY DATA SHEET

AS-8040

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Dipotassium Phosphate (K_2HPO_4), FCC

Prepared in accordance with the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals, as adopted under the Work Health and Safety Regulations (Australia).

SECTION 1 — IDENTIFICATION

Product Name	Dipotassium Phosphate (Dipotassium Hydrogen Phosphate), FCC
Catalogue Number	AS-8040
CAS Number	7758-11-4
EINECS Number	231-834-5
Molecular Formula	K_2HPO_4
Synonyms	Potassium phosphate dibasic; Dibasic potassium phosphate; Potassium monohydrogen phosphate; DKP
Recommended Use	Buffering agent, stabiliser, and nutrient source for food processing, fermentation, culture media, and industrial formulation. FCC (Food Chemicals Codex) grade.
Supplier	AuSaMicS Pty Ltd, 36/25 Trafalgar Road, Epping VIC 3076, Australia Phone: +61 412 520 598 | Email: support@ausamics.com
Emergency Telephone	AuSaMicS Pty Ltd: +61 412 520 598 (business hours, AEST) Poisons Information Centre (Australia): 13 11 26 (24 hours)

SECTION 2 — HAZARDS IDENTIFICATION

GHS Classification: Not classified as hazardous under the Australian WHS Regulations or GHS criteria in solid or dilute form.

Signal Word: None required. Pictograms: None required.

Other hazards: Concentrated aqueous solutions are mildly to moderately alkaline (pH up to 9.6) and may cause eye and skin irritation on prolonged or concentrated contact. This substance does not meet the criteria for PBT or vPvB.

SECTION 3 — COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS No.	EC No.	Concentration
Dipotassium Phosphate (K_2HPO_4)	7758-11-4	231-834-5	≥ 98.0%

Substance (not a mixture). Molecular weight: 174.18 g/mol. Minor residual impurities (chloride, sulfate) are controlled below specification thresholds — see Section 9 and the product Certificate of Analysis.

SECTION 4 — FIRST AID MEASURES

Inhalation	Remove to fresh air. Seek medical attention if discomfort persists.
Skin Contact	Wash with plenty of water. Remove contaminated clothing. Seek medical attention if irritation persists (particularly from concentrated solutions).
Eye Contact	Flush with copious water for at least 15 minutes, including under eyelids. Remove contact lenses if present and easy to do. Seek medical attention — concentrated alkaline solutions can cause irritation.

Ingestion	Rinse mouth and drink water. Seek medical advice if a large quantity is ingested or if discomfort occurs.
Most Important Symptoms	Mild irritation to eyes and skin possible from dust or concentrated solutions. No significant acute toxicity expected at typical use concentrations.

SECTION 5 — FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Use extinguishing media appropriate to the surrounding fire; product itself is not combustible.
Unsuitable Extinguishing Media	None known.
Specific Hazards	Not flammable, not explosive, not oxidising. Thermal decomposition may yield phosphorus oxides and potassium oxides.
Advice for Firefighters	Wear standard fire-fighting protective equipment and self-contained breathing apparatus if significant smoke/fume is present.

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Personal Precautions	Avoid generating dust. Use appropriate PPE (Section 8) if handling large spills.
Environmental Precautions	Avoid release to waterways — high phosphate concentrations contribute to eutrophication and algal bloom formation.
Containment & Clean-Up	Sweep or vacuum carefully (avoid dust generation) and collect in a sealed, labelled container. Wash the spill site thoroughly; avoid bulk discharge to drains.

SECTION 7 — HANDLING AND STORAGE

Handling Precautions	Handle in a well-ventilated area. Avoid inhaling dust and avoid eye contact with powder or concentrated solutions.
Hygiene Measures	Wash hands after handling. Avoid contact with concentrated solutions without eye protection.
Storage Conditions	Store at 15–30°C in a dry location, tightly sealed. Protect from moisture — the product is hygroscopic at high relative humidity. Keep away from strong acids and strong oxidising agents.

SECTION 8 — EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Standard	No specific Australian Workplace Exposure Standard established. Apply the general inhalable dust limit (10 mg/m³) as a precaution.
Eye/Face Protection	Safety spectacles; chemical safety goggles recommended when handling concentrated solutions.
Hand Protection	Nitrile or equivalent chemically resistant gloves.
Skin/Body Protection	Laboratory coat / standard protective clothing.
Respiratory Protection	Not normally required with adequate ventilation; use dust mask where dust generation is significant.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Property	Value
Physical State	Solid, crystalline powder or granules

Appearance	White crystalline powder or granules
Odour	Odourless
pH (1% w/v solution, 25°C)	8.5 – 9.6
Melting Point	≈340°C (decomposes)
Solubility in Water	Freely soluble
Solubility — Other	Practically insoluble in ethanol
Flammability	Not flammable
Oxidising Properties	Not oxidising

SECTION 10 — STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended ambient storage conditions.
Reactivity	Reacts with strong acids, evolving phosphoric acid mist.
Hazardous Polymerisation	Will not occur.
Incompatible Materials	Strong acids, strong oxidising agents.
Hazardous Decomposition Products	Phosphorus oxides and potassium oxides on strong heating; slow conversion to potassium metaphosphate on prolonged heating.
Hygroscopicity	Hygroscopic at high relative humidity; keep tightly sealed.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute Toxicity	Low acute toxicity by oral, dermal, and inhalation routes at typical use concentrations.
Skin/Eye Irritation	Not classified; concentrated (alkaline) solutions may cause irritation.
Sensitisation	No data indicating sensitisation potential.
Carcinogenicity/Mutagenicity/Reproductive Toxicity	No evidence of carcinogenicity, mutagenicity, or reproductive toxicity at food-use levels.

SECTION 12 — ECOLOGICAL INFORMATION

Aquatic Toxicity	Phosphate is a plant macronutrient; low acute toxicity, but large-scale release to waterways contributes to eutrophication and algal bloom formation.
Persistence/Degradability	Biodegradable; readily assimilated in the environment as a nutrient.
Bioaccumulative Potential	Not expected to bioaccumulate.
Mobility in Soil	Mobile; phosphate is taken up as a plant nutrient.

SECTION 13 — DISPOSAL CONSIDERATIONS

Small quantities may be diluted with water and disposed of via drain in accordance with local council and EPA trade waste requirements. Larger quantities should be disposed of as non-hazardous waste in accordance with Victorian EPA guidelines. Avoid bulk discharge of concentrated solutions to surface water.

SECTION 14 — TRANSPORT INFORMATION

Not classified as Dangerous Goods under the Australian Dangerous Goods (ADG) Code, IATA, or IMDG regulations. No UN Number applicable. No special transport precautions required.

SECTION 15 — REGULATORY INFORMATION

Grade	FCC (Food Chemicals Codex) — compliant with international food chemical standards
Australia/NZ	Permitted food additive (FSANZ) — phosphates, Code 340
EU Food Number	E340(ii) — Dipotassium phosphate
WHS/GHS	Compliant with Australian WHS Regulations and current GHS classification criteria

SECTION 16 — OTHER INFORMATION

SDS Reference	SDS-AS-8040-DKP
Revision Date	25 July 2026
Prepared By	AuSaMicS Pty Ltd
Next Review	July 2028
Abbreviations	GHS = Globally Harmonized System; WHS = Work Health and Safety; FCC = Food Chemicals Codex; PBT = Persistent, Bioaccumulative, Toxic; vPvB = very Persistent, very Bioaccumulative