

Current version date: 2023/07/01

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SECTION 1. IDENTIFICATION**GHS product identifier:****Identification as on the label/Trade name:** DIKPHOS™**Other means of identification:****Additional information/Alternative name:** None**Recommended use of the chemical and restrictions on use:****Identified uses:** Fungicide for the control of citrus black spot on citrus crops.**Uses advised against:** Use only as directed.**Supplier's details:**

River Bioscience (Pty) Ltd
5th Floor, Fairview House, Fairview Office Building
66 Ring Road,
Greenacres,
Gqeberha,
6045,
South Africa

Emergency phone number:

+27 41 492 4216 (office hours)

SECTION 2. HAZARD IDENTIFICATION**Classification of the substance or mixture:****The mixture is classified according to:** United Nations, Globally Harmonized System of Classification, 9th Edition, published 2021.

Hazard classes	Hazard classification category
Acute dermal	Category 5
Acute inhalation	Category 4

GHS label elements, including precautionary statements:**Signal Word:** Warning.**Hazard Statements:**

May be harmful in contact with skin.

Harmful if inhaled.

Hazard pictograms: Exclamation mark.

Precautionary statements:

Read the label before use.

Keep out of reach of children and animals.

Avoid breathing spray.

Use only outdoors or in a well-ventilated area.

Other hazards which do not result in classification:

None.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture:

Mixture.

Chemical identity of the ingredients (IUPAC)	CAS –No.	Concentration (% v/v)	Classification
	EC-No.		GHS 9 th Edition
Dipotassium phosphate	7758-11-4	30%	Not classified as hazardous
	231-834-5		

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4. FIRST AID MEASURES

Description of necessary first aid measures:

In case of inhalation: Remove person to fresh air and keep comfortable for breathing. Get medical help.

In case of skin contact: If skin irritation or rash occurs, wash with plenty of soap and water. Take off contaminated clothing and wash it before re-use. Seek medical advice if symptoms persist.

In case of eye contact: Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. Seek medical advice if symptoms persist.

In case of ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Seek medical attention if you feel unwell.

Most important symptoms/effects, acute and delayed:

Ingestions: After absorption of large quantities, feeling of weakness, nausea, vomiting.

Indication of immediate medical attention and special treatment needed, if necessary:

Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURE

Extinguishing media:

Suitable extinguisher media: Use foam, dry chemical powder or carbon dioxide.

Unsuitable extinguishing media: Water jets or high-pressure water jets.

Special hazards arising from the mixture:

Nature of decomposition products not known for the mixture but may contain potassium oxides.

Special protective actions for fire-fighters:

Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Be sure to use an approved/certified respirator or equivalent.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:

For non-emergency personnel: Isolate area. Remove possible causes of ignition-do not smoke. Keep unnecessary and unprotected personnel from entering the area. Avoid inhalation and contact with skin. Refer to Section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

For emergency responders: Isolate area. Remove possible causes of ignition-do not smoke. Keep unnecessary and unprotected personnel from entering the area. Avoid inhalation and contact with skin. Refer to Section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental precautions:

Prevent from entering into soil, ditches, sewers, waterways and/or groundwater.

Methods for containment and cleaning up:

For small spills: Contain spilled material if possible. Collect in suitable and properly labelled containers. Absorb with materials such as: sand, earth, vermiculite, or diatomaceous earth.

For large spills: Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g., sand, earth, vermiculite or diatomaceous earth and place in well labelled container for disposal according to local regulations.

Reference to other sections:

See section 7 for information on safe handling.

See section 8 for information on personal protection equipment.

See section 13 for information on disposal.

Additional information:

None know.

SECTION 7. HANDLING AND STORAGE**Precautions for safe handling:**

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not get in eyes or on skin or clothing.

Advice on general safe handling: Read the label before use. Use only as directed.

Advice on general occupational hygiene: Do not eat, drink or smoke whilst mixing or applying, nor before washing hands and face.

Conditions for safe storage, including incompatibilities:

Use as directed. While in use, the container must be kept cool and in the shade. The container must not be exposed directly to sunlight. Store away from foodstuffs and animal feed.

Specific storage requirements: Shelf-life of 2 years from date of manufacture if stored in a cool well-ventilated and dry area.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Occupational exposure limits (OEL): None known.

Biological exposure indices (BEI): None known.

Additional exposure limits under the specific conditions of use: None known.

Appropriate engineering controls:

None required.

Individual protection measures, such as personal protective equipment (PPE):

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Use safety glasses. If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles. Ensure that eyewash stations are close to the workstation location.

Skin protection: Wear appropriate clothing for task or operation. Use chemical resistant gloves. Examples of glove barrier materials include nitrile/butadiene rubber. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Keep working clothes separately. Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Ensure that safety showers are close to the workstation location.

Respiratory protection: For most conditions no, respiratory protection should be needed; however, if discomfort is experienced or when the Risk Assessment shows respiratory protection is required, use an approved air-purifying respirator.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Physical state: Liquid.

Colour: Clear.

Odour: None.

Melting point/Freezing point (°C): Not applicable.

Boiling point/range (°C): Not applicable.

Flammability: Not applicable.

Upper/lower flammability/explosive limits: Not applicable.

Flash point (°C): Not applicable.

Auto-ignition temperature (°C): Not applicable.

Decomposition temperature: 465°C.

pH (at concentration): 9.2

Viscosity (dynamic) (cP): Not applicable.

Water solubility (g/l) at 20°C: Easily soluble in water.

n-Octanol / Water partition coefficient: Not applicable.

Vapour pressure (20°C): Not applicable.

Density / relative density (20°C) (g/ml): 1.226

Relative vapour density: Not applicable.

Particle characteristics (nm): Not applicable.

Physical hazards:

None known

SECTION 10. STABILITY AND RELIABILITY

Reactivity:

Product is stable. No specific test data related to reactivity available for this product or its ingredients.

Chemical stability:

Minimum 24 months shelf life if stored under recommended conditions.

Possibility of hazardous reactions:

Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid:

Not known.

Incompatible materials:

Not known.

Hazardous decomposition products:

Not known.

SECTION 11. TOXICOLOGICAL INFORMATION**Toxicokinetics, metabolism and distribution:**

Non-human toxicological data: No information available.

Method: No information available.

Dosage: No information available.

Routes of administration: Inhalation and ingestion.

Results: No information available.

Absorption: No information available.

Distribution: No information available.

Metabolism: Phosphates are toxic because of their ability to sequester calcium. But are slowly and incompletely absorbed when ingested and seldom result in systemic effects. Furthermore, acute potassium poisoning by mouth is rare because large single doses usually induce vomiting and because of absence of pre-existing kidney damage potassium is readily excreted.

Excretion: In the absence of pre-existing kidney damage, large doses of potassium are excreted.

Information on toxicological health effects:**Acute toxicity:**

Acute oral LD50 rats > 5000 mg/kg (tested result).

Dermal LD50 rats >2000 mg/kg (tested result).

Inhalation LC50 rats >3.34 mg/L of air (tested result).

Skin corrosion/irritation: Not a skin irritant for rabbits (tested result).

Serious eye damage/irritation: Not an eye irritant for rabbits (tested result).

Respiratory or skin sensitization: Not a skin sensitizer for Guinea pigs (tested result).

Germ cell mutagenicity: No information available.

Carcinogenicity: No information available.

Reproductive toxicity: No information available.

STOT-single exposure: No information available.

STOT-repeated exposure: No information available.

Aspiration hazard: No information available.

Information on the likely routes of exposure:

No information available.

Symptoms related to the physical, chemical, and toxicological characteristics:

No known symptoms.

Delayed/Immediate/Chronic effects from short- and long-term exposure:

No information available.

Numerical measures of toxicity (ATE):

ATE Calculation not required.

Interactive effects:

No information available.

Other information:

Baculoviruses are not known to cause any adverse effects in terms of human health.

SECTION 12. ECOLOGICAL INFORMATION

Information on ecotoxicological effects:

Toxicity:

Fish: LC50 (48 h) static system for *Leuciscus idus* >900mg/L.

Bees: LD50 (48 h) *Apis indica* >100.0 µg a.i./bee.

Ecology Air: Not dangerous to the ozone layer (council regulation (EC) no 1005/2009) TA Luft klasse 5.2.1.

Persistence and degradability: No information available.

Bio-accumulative potential: No information available.

Mobility in soil: No information available.

Other adverse effects: No information available.

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal methods:

Treat as hazardous waste and dispose of in accordance with national or international regulations as appropriate.

Container disposal methods: Rinse empty container three times with a volume of water equal a third of the volume of the container. Add the rinsing's to the contents of the spray tank. Destroy empty container and do not use for any other purpose.

Physical/chemical properties affecting disposal: None known.

Special precautions for incineration or landfill: Do not burn container or product. Recycle as far as possible.

SECTION 14. TRANSPORT INFORMATION
Transporting/Shipping information:

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number	Not regulated	Not regulated	Not regulated
UN Proper shipping name:	Not required	Not required	Not required
Transport hazard class:	Not required	Not required	Not required
Packaging group:	Not required	Not required	Not required
Environmental hazards:	No	No	No
Special precautions for user:	Not required	Not required	Not required
Transport in bulk according	Not required	Not required	Not required

to IMO instruments:			
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SECTION 15. REGULATORY INFORMATION**Safety, health, and environmental regulations specific for the product in question:**

Regulatory status of the substance/mixture: Registered under the "Fertilizer, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act No 36 of 1947), regulating agricultural remedies in South Africa.

Relevant safety/health/environmental regulations: The labels and SDS of this product complies with the Occupational Health and Safety Act, 1993 (Act N 85 of 1993), and the Regulations for Hazardous Chemical Agents, 2021, in South Africa.

SECTION 16. OTHER INFORMATION**Preparation date and revision number:**

Current version date:	Current version:
2022/07/01	1.0 / 2022
2023/07/01	1.0 / 2023

Revision changes: Section 1: Update of supplier details and emergency phone number

Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

Notice to readers:

Employers should use this information only as a supplement to other information gathered by them and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees.

This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.