Version number: 02

KOCH

SAFETY DATA SHEET

KOCH FERTILISER AUSTRALIA PTY LTD

1. Identification

Product identifier Flutriafol-treated Diammonium Phosphate

Other means of identification

Synonyms Phosphoric acid, diammonium salt * Diammonium hydrogenorthophosphate * Diammonium

hydrophosphate * DAP

Product code KFAu_Flu_DAP_AU_EN

Recommended use of the chemical and restrictions on use

Recommended use Fertiliser.

Restrictions on use Not available.

Details of manufacturer or importer

Manufacturer

Company name Koch Fertiliser Australia Pty Ltd

Address Level 17

357 Collins St

Melbourne, Victoria, 3000

Australia

Telephone +011 61 3 9452 8200 or

+1.316.828.7672

e-mail kochmsds@kochind.com

Emergency telephone Chemtrec: +001 703-527-3887

number (Please reverse charges)

2. Hazard(s) identification

Classification of the hazardous chemical

Physical hazards Not classified.
Health hazards Not classified.
Environmental hazards Not classified.

Label elements, including precautionary statements

Hazard symbol(s) None.
Signal word None.

Hazard statement(s) The substance does not meet the criteria for classification.

Precautionary statement(s)

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Other hazards which do not

result in classification

None known.

Supplemental information None.

3. Composition/information on ingredients

Substance

Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients
Diammonium phosphate	7783-28-0	> 99
Flutriafol	76674-21-0	< 0.3

Flutriafol-treated Diammonium Phosphate

SDS Australia

936790 Version #: 02 Revision date: 08-April-2022 Issue date: 06-March-2017

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in **Composition comments**

percent by volume.

This Safety Data Sheet is not a guarantee of product specification or NPK value(s). NPK content is on specified sales orders, customer invoices, or product specification sheets obtained from

supplier.

4. First-aid measures

Description of necessary first aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Wash off with soap and water. Get medical attention if irritation develops and persists. Skin contact Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists. Eye contact

Rinse mouth. Get medical attention if symptoms occur. Ingestion

Personal protection for first-aid

responders

protect themselves.

Ensure that medical personnel are aware of the material(s) involved, and take precautions to

Symptoms caused by exposure

Medical attention and special

treatment

Symptoms can include irritation, redness, scratching of the cornea, and tearing.

Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing

media

Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing

media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from

the chemical

During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for fire

fighters Fire fighting

equipment/instructions

Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Use standard firefighting procedures and consider the hazards of other involved materials. Use water spray to cool unopened containers.

Hazchem Code

General fire hazards

The product is non-combustible.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

None.

For non-emergency

personnel

Avoid inhalation of dust and contact with skin and eves. Ensure adequate ventilation. Wear

suitable protective clothing. For personal protection, see section 8 of the SDS.

For emergency responders

Not available

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not contaminate water. Do not allow to enter drains, sewers or watercourses.

Methods and materials for containment and cleaning up

Stop the flow of material, if this is without risk. Prevent entry into waterways, sewer, basements or confined areas. Avoid dust formation. Sweep up or vacuum up spillage and collect in suitable container for disposal. If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. After removal flush contaminated area thoroughly with water.

Never return spills to original containers for re-use. For waste disposal, see Section 13 of the SDS.

Other issues relating to spills and releases

Clean up in accordance with all applicable regulations.

7. Handling and storage

Precautions for safe handling

Avoid generation and spreading of dust. Avoid inhalation of dust and contact with skin and eyes. Use with adequate ventilation. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities Keep container tightly closed. Store in a cool, dry, well-ventilated place. Store away from incompatible materials.

936790 Version #: 02 Revision date: 08-April-2022 Issue date: 06-March-2017

8. Exposure controls and personal protection

Follow standard monitoring procedures. **Control parameters** Occupational exposure limits No exposure limits noted for ingredient(s).

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering

Provide adequate general and local exhaust ventilation. Observe occupational exposure limits and

controls

minimise the risk of inhalation of dust.

Individual protection measures, for example personal protective equipment (PPE) Risk of contact: Wear dust goggles. Eye/face protection

Skin protection

Risk of contact: Wear protective gloves. Suitable gloves can be recommended by the glove **Hand protection**

supplier.

Other No skin protection is ordinarily required under normal conditions of use. In accordance with good

industrial hygiene practices, precautions should be taken to avoid skin contact.

If engineering controls do not maintain airborne concentrations below recommended exposure Respiratory protection

limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Wear air supplied respiratory protection if exposure concentrations are unknown. In case of inadequate ventilation or risk of inhalation of

dust, use suitable respiratory equipment with particle filter.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

Always observe good personal hygiene measures, such as washing after handling the material Hygiene measures

and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Handle in accordance with good industrial hygiene and safety

practices.

9. Physical and chemical properties

Granules. Granular. **Appearance**

Solid. Physical state

Not available. **Form**

Colour Colourless., Off-white, White, Brown.

Not available. Odour **Odour threshold** Not available. 7.7 - 8.1 (25°C) pН Melting point/freezing point 155 °C (311 °F) Initial boiling point and boiling Not available.

range

Not available. Flash point **Evaporation rate** Not available. Not available. Flammability (solid, gas) Upper/lower flammability or explosive limits

Flammability limit - lower

Not available.

Flammability limit - upper

Not available.

Explosive limit - lower (%) Not available. Not available. Explosive limit - upper

(%)

< 0 kPa (25 °C) Vapour pressure Not available. Vapour density Not available. Relative density

Solubility(ies)

57.5 % @ 10 °C Solubility (water) Partition coefficient Not available.

(n-octanol/water)

Auto-ignition temperature Not available. **Decomposition temperature** Not available. **Viscosity** Not available.

Other physical and chemical parameters

Density1.62 g/cm3Explosive propertiesNot explosive.FlammabilityNot available.Oxidising propertiesNot oxidising.

10. Stability and reactivity

Reactivity The product is non-reactive under normal conditions of use, storage and transport.

Chemical stability The product is stable under normal conditions of use, storage and transport.

Possibility of hazardous

reactions

Hazardous polymerisation does not occur.

Conditions to avoid Contact with incompatible materials.

Incompatible materials Bases. Metals. Oxidising material.

Hazardous decomposition

products

Nitrogen oxides (NOx). Phosphorus oxides. Ammonia.

11. Toxicological information

Information on possible routes of exposure

InhalationDust may irritate respiratory system.Skin contactDust or powder may irritate the skin.

Eye contact Dust may irritate the eyes.

Ingestion May irritate and cause stomach pain, vomiting and diarrhoea.

Symptoms related to exposure Symptoms can include irritation, redness, scratching of the cornea, and tearing.

Acute toxicity May irritate and cause stomach pain, vomiting and diarrhoea.

Components Species Test results

Diammonium phosphate (CAS 7783-28-0)

<u>Acute</u>

Dermal

LD50 Sprague-Dawley rat > 5000 mg/kg

Inhalation

LC50 Rat > 5000 mg/m³, 4 hours

Oral

LD50 Sprague-Dawley rat > 2000 mg/kg

Flutriafol (CAS 76674-21-0)

Acute Dermal

LD50 Rabbit >= 1000 mg/kg

Oral

LD50 Rat 1140 mg/kg

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation. **Serious eye damage/irritation** Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitisation

Respiratory sensitisation Not a respiratory sensitiser.

Skin sensitisation This product is not expected to cause skin sensitisation.

Germ cell mutagenicityNo data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Carcinogenicity Not available.

Reproductive toxicity

This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - Not classified.

single exposure

Flutriafol-treated Diammonium Phosphate
936790 Version #: 02 Revision date: 08-April-2022 Issue date: 06-March-2017

Specific target organ toxicity -

repeated exposure

Not classified.

Aspiration hazard

Not an aspiration hazard.

12. Ecological information

EcotoxicityThe product is not classified as environmentally hazardous. However, this does not exclude the

possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components Species Test results

Diammonium phosphate (CAS 7783-28-0)

Aquatic

AlgaeEC50Selenastrum capricornutum> 97.1 mg/l, 72 hoursCrustaceaLC50Daphnia1790 mg/l, 96 hoursFishLC50Carp, hawk fish (Cirrhinus mrigala)1700 mg/l, 96 hours

Persistence and degradability

Bioaccumulative potential No data available.

Mobility in soil This product is water soluble and may disperse in soil.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal methodsCollect and reclaim or dispose in sealed containers at licensed waste disposal site.

Residual waste Dispose of in accordance with local regulations. Empty containers or liners may retain some

product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is

emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

Not applicable.

14. Transport information

ADG

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to

Annex II of MARPOL 73/78 and

the IBC Code

15. Regulatory information

Safety, health and environmental regulations

National regulations This Safety Data Sheet was prepared in accordance with Australia Model Code of Practice for the

preparation of Safety Data Sheets for Hazardous Chemicals (23/12/2011).

Australia Medicines & Poisons Appendix B

AMMONIUM PHOSPHATE (CAS 7783-28-0)

Australia Medicines & Poisons Schedule 6

FLUTRIAFOL (CAS 76674-21-0)

High Volume Industrial Chemicals (HVIC)

Not listed

Importation of Ozone Deleting Substances (Customs(Prohibited imports) Regulations 1956, Schedule 10)

Not listed.

National Pollutant Inventory (NPI) substance reporting list

Not listed.

Flutriafol-treated Diammonium Phosphate
936790 Version #: 02 Revision date: 08-April-2022 Issue date: 06-March-2017

Prohibited Carcinogenic Substances

Not regulated.

Prohibited Substances (National Model Regulation for the control of Workplace Hazardous Substances, Schedule 2 NOHSC:1005 (1994) as amended)

Not listed

Resricted Importation of Organochlorine Chemicals (Customs(Prohibited Imports) Regulations 1956, Schedule 9)

Not listed.

Restricted Carcinogenic Substances

Not regulated.

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

Country(s) or region

International Inventories

Australia

Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No

Australian Inventory of Chemical Substances (AICS)

Toxic Substances Control Act (TSCA) Inventory

Inventory name

16. Other information

Disclaimer

United States & Puerto Rico

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NOTICE: The information presented herein is based on data considered to be accurate as of the date of preparation of this Safety Data Sheet (SDS) and was prepared pursuant to Government regulation(s) that identify specific types of information to be provided. This SDS may not be used as a commercial specification sheet of manufacturer or seller, and no warranty or representation, expressed or implied, is made as to the accuracy or comprehensiveness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. Additional information may be needed to evaluate other uses of the product, including use of the product in combination with any materials or in any processes other than those specifically referenced. Information provided herein with respect to any hazards that may be associated with the product is not meant to suggest that use of the product in a given application will necessarily result in any exposure or risk to workers or the general public. No responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product. Purchasers and users assume all risk of use, storage and handling of the product in compliance with applicable federal, state and local laws and regulations. Purchasers and users of the product specifically should advise all of their employees, agents, contractors and customers who will use the product of this (M)SDS.

Flutriafol-treated Diammonium Phosphate

SDS Australia

On inventory (yes/no)*

Nο

Nο

^{*}A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).