



SAFETY DATA SHEET

KOCH FERTILIZANTES DO BRASIL LTDA.

1. Identification

Name of the substance or mixture (trade name) Diammonium phosphate

Synonyms Phosphoric acid, diammonium salt * Diammonium hydrogenorthophosphate * Diammonium hydrophosphate * DAP

MSDS Number KFB_DAP_GHS_EN

Major recommended uses for the substance or mixture Fertilizer
Fertilizer.

Specific restrictions for use of the substance or mixture Not available.

Manufacturer/Importer/Distributor information

Manufacturer

Manufacturer/Supplier Address Koch Fertilizantes do Brasil
Rua Joaquim Floriano 1.120
1 andar
Cj. 12 Sao Paulo, SP BRASIL

E-mail kochmsds@kochind.com

Telephone +011 55 41 92263400
+1 316 828 7672

Emergency telephone number For Chemical Emergency

Call CHEMTREC day or night
USA/Canada - 1.800.424.9300
Outside USA/Canada
1.703.527.3887
(collect calls accepted)

2. Hazards identification

Classification of the substance or mixture

Physical hazards Not classified.

Health hazards Not classified.

Environmental hazards Not classified.

Other hazards which do not result in classification Not classified.

GHS labeling elements, including precautionary statements

Hazard symbol(s) No symbol.

Signal word No signal word.

Hazard statement(s) Not available.

Precautionary statement(s)

Prevention Wear eye/face protection.

Response Wash hands after handling.

Storage Store away from incompatible materials.

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

3. Composition/information on ingredients

Substance

Common chemical name or technical name	CAS number	Concentration or concentration range
Diammonium phosphate	7783-28-0	100

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

First-aid measures

Inhalation Move to fresh air. Get medical attention if any discomfort continues.

Skin contact Flush skin thoroughly with water. Get medical attention if irritation develops or persists.

Eye contact Dust in the eyes: Do not rub eyes. Flush eyes immediately with large amounts of water. Get medical attention if irritation develops and persists.

Ingestion If ingestion of a large amount does occur, call a poison control center immediately.

Most important symptoms/effects, acute and delayed Dusts may irritate the respiratory tract, skin and eyes. Symptoms can include irritation, redness, scratching of the cornea, and tearing.

Personal protection for first-aid responders Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

Notes to physician Treat symptomatically.

5. Fire-fighting measures

Means of fire extinguishing

Suitable extinguishing media Water. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media None known.

Specific hazards arising from the chemical None known.

Special fire fighting procedures In the event of fire, cool tanks with water spray. Move containers from fire area if you can do it without risk.

Protective measures taken by fire fighting crews Self-contained breathing apparatus and full protective clothing should be worn when fighting chemical fires. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.

6. Control measures for spills and leaks

Personal precautions, protective equipment and emergency procedures

To be taken by those who are not involved in rendering emergency services Avoid inhalation of dust and contact with skin and eyes. Ensure adequate ventilation. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use personal protection as recommended in Section 8 of the MSDS.

To be taken by those who are involved in rendering emergency services Use personal protection as recommended in Section 8 of the MSDS.

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not allow material to enter storm or sanitary sewers, groundwater or soil.

Methods and materials for containment and cleaning up Stop the flow of material, if this is without risk. If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. Collect dust using a vacuum cleaner. If not possible, gently moisten dust with water fog before it is collected with shovel, broom or the like. After removal flush contaminated area thoroughly with water.

Never return spills to original containers for re-use. Avoid dust formation.

Emergency procedures Keep unnecessary personnel away.

7. Handling and storage

Precautions for safe handling Avoid inhalation of dust and contact with skin and eyes. Use only with adequate ventilation. Use work methods which minimize dust production. Keep the workplace clean.

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

8. Exposure controls/personal protection

Control parameters Follow standard monitoring procedures.

Occupational exposure limits**US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Dust (CAS -)	TWA	3 mg/m ³ 10 mg/m ³	Respirable particles. Inhalable particles.

Biological limit values

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

Appropriate engineering controls

Provide sufficient ventilation for operations causing dust formation.

Personal protective measures**Eyes and face protection**

Use tight fitting goggles if dust is generated.

Skin protection**Hand protection**

Risk of contact: Wear protective gloves. Suitable gloves can be recommended by the glove supplier.

Other

Wear suitable protective clothing.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

Hygiene measures

Do not breathe dust. Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties**Appearance**

Granules. Granular.

Physical state

Solid.

Form

Solid.

Color

Colorless, Off-white, White , Brown.

Odor

Not available.

Odor threshold

Not available.

pH

7.7 - 8.1 (25°C)

Melting point/freezing point

311 °F (155 °C)

Initial boiling point and boiling temperature range

Not available.

Flash point

Not available.

Evaporation rate

Not available.

Flammability (solid, gas)

Not available.

Upper/lower flammability or explosive limits**Flammability limit - lower (%)**

Not available.

Flammability limit - upper (%)

Not available.

Explosive limit - lower (%)

Not available.

Explosive limit - upper (%)

Not available.

Vapor pressure

Not available.

Vapor density

Not available.

Relative density

Not available.

Solubility(ies)

57.5 % @ 10 °C

Partition coefficient (n-octanol/water)

Not available.

Auto-ignition temperature

Not available.

Decomposition temperature

Not available.

Viscosity

Not available.

Other physical and chemical parameters

Density	1.62 g/cm ³
Flammability	Not available.
Molecular formula	H ₉ N ₂ O ₄ P
Molecular weight	132.06 g/mol

10. Stability and reactivity

Reactivity	Stable at normal conditions.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	None known.
Incompatible materials	Bases. Metals. Oxidizing material.
Hazardous decomposition products	Nitrogen oxides (NO _x). Phosphorus oxides. Ammonia.

11. Toxicological information**Information on likely routes of exposure**

Ingestion	May irritate and cause stomach pain, vomiting and diarrhoea.
Inhalation	Dust may irritate respiratory system.
Skin contact	Dust may irritate skin.
Eye contact	Dust may irritate the eyes.

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

Acute toxicity Dusts may irritate the respiratory tract, skin and eyes. Dust irritates the respiratory system, and may cause coughing and difficulties in breathing. Exposure to sufficient concentrations of decomposition products may result in pulmonary edema. May irritate and cause stomach pain, vomiting, diarrhea and nausea.

Components	Species	Test Results
Diammonium phosphate (CAS 7783-28-0)		
Acute		
<i>Dermal</i>		
LD50	Sprague-Dawley rat	> 5000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 5000 mg/m ³ , 4 hours
<i>Oral</i>		
LD50	Sprague-Dawley rat	> 2000 mg/kg
Skin irritation and corrosion	Dust may irritate skin.	
Serious eye damage/eye irritation	Dust may irritate the eyes.	
Respiratory or skin sensitization		
Respiratory sensitization	No data available.	
Skin sensitization	Not a skin sensitizer.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Carcinogenicity	IARC not listed.	
Toxic to reproduction	Contains no ingredient listed as toxic to reproduction.	
Specific target organ toxicity - single exposure	Not classified.	
Specific target organ toxicity - repeated exposure	Not classified.	
Aspiration hazard	No data available.	
Chronic effects	Frequent inhalation of fume/dust over a long period of time increases the risk of developing lung diseases.	
Other information	No other specific acute or chronic health impact noted.	

12. Ecological information

Ecotoxicity Not classified.

Components	Species	Test Results
Diammonium phosphate (CAS 7783-28-0)		
Aquatic		
Crustacea	LC50 Daphnia	1790 mg/l, 96 hours
Fish	LC50 Carp, hawk fish (Cirrhinus mrigala)	1700 mg/l, 96 hours

Persistence and degradability There are no data on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow) Not available.

Bioconcentration factor (BCF) Not available.

Mobility in soil The product is water soluble and may spread in water systems.

Other adverse effects No data available.

13. Considerations on final disposal

Recommended methods for final destination

Residual waste Dispose of in accordance with local regulations.

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

Local disposal regulations Dispose in accordance with all applicable regulations.

14. Transport information

National regulations

ANTT

Not regulated as dangerous goods.

International regulations

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 This substance/mixture is not intended to be transported in bulk.

15. Regulatory information

Federal regulations This chemical product safety data sheet was prepared in accordance with the Brazilian Standard (ABNT NBR 14725-4: (Safety data sheet for chemicals (SDS))).

Brazil. Controlled products that must be reported to the Army (Decree No. 3655, Annex 1, as amended)

Not applicable.

Brazil. Drug precursors (Ordinance No. 1.274)

Not applicable.

Brazil. Ozone depleting substances (Decree No. 99.280, Annexes A, B, C and E, as amended)

Not applicable.

Brazil. Use and physiological effects of chemical products (Decree No. 3665, Annex 3)

Not applicable.

International regulations

Montreal Protocol

Not applicable.

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

16. Other information

Significant information, not yet specifically related to the previous sections Not available.

Legends and abbreviations LC50: Lethal Concentration, 50%.
LD50: Lethal Dose, 50%.

This MSDS contains revisions in the following section(s): 5, 6, 7, 8.

Disclaimer

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