



PRODUCT: **DIPOTASSIUM PHOSPHATE 50%** (DPP50) REVISION:1 DATED: 11/12/19 PAGE 1 OF 4

PRODUCT SPECIFICATION

Product Name	Dipotassium Phosphate 50%
Specification Reference	DPP/1(19/12/0043280)

SALES SPECIFICATION

Property	Unit
Description	Colourless, clear liquid
Phosphate (P ₂ O ₅)	Min 20.0%
Dipotassium Phosphate (K ₂ HPO ₄)	49.0 – 52%
Fluor (F)	Max 10 ppm
Arsenic (As)	Max 2 ppm
Lead (Pb)	Max 2 ppm
Cadmium (Cd)	Max 1 ppm
Mercury (Hg)	Max 1 ppm
Heavy Metals (as Pb)	Max 10 ppm
Density (20°C)	ca. 1.530 g/ml
pH value (1% solution)	9.3 – 9.8

NOTES

Exclusion of Liability

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SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

1.1 Product Identifier

Product Name Dipotassium Phosphate 50%

Relevant identified uses of the substance or mixture and uses advised against

Identified use(s) Special phosphate. Formulation additive. Water treatment. Water conditioner.

Uses advised against Uses other than those recommended

1.3 Details of the supplier of the safety data sheet

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Email: msds@tennantsdistribution.com

1.4 Emergency telephone number

Tel: 44(0) 844 3350001 (24 hours)

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Not classified According to Regulation (EC) No. 1272/2008 (CLP).

Label elements

Void

Other Hazards

Results of PBT and vPvB assessment

PBT: not applicable. vPvB: not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Description

Mixture consisting of the following components: Dipotassium phosphate in water

Dangerous components: Void

SVHC: No

Additional information: No further relevant information available.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General information

No special measures required

Inhalation

Supply fresh air; consult doctor in case of symptoms.

Ingestion

Rinse out mouth and then drink plenty of water (approx. 500 ml). In case of persistent symptoms consult doctor.

Never give an unconscious person anything to drink.

Skin contact

Wash with water and soap. In case of persistent symptoms consult doctor.

Eye contact

Rinse opened eye for 15 minutes under running water. If symptoms persist, consult doctor.

4.2. Most important symptoms and effects, both acute and delayed

No further relevant information available

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing Media

Suitable extinguishing media

Use fire fighting measures that suit the environment. CO₂, extinguishing powder or water jet. Fight larger fires with foam.

Unsuitable extinguishing media

Not stated



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5.2 Special hazards arising from the substance or mixture

Fire can cause release of : Phosphorus oxides (PxOy)

5.3 Advice for fire-fighters

Do not inhale explosion gases or combustion gases. Wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective clothing

6.2 Environmental precautions

Do not allow concentrated solutions to enter drainage system, surface or ground water.

6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).

6.4 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.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

The usual precautionary measures should be adhered to in handling the chemicals.

Information about protection against explosions and fires: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and containers: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: Protect from frost. Product quality requires storage between +2°C and +30°C.

7.3 Specific end use(s)

No further relevant information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Additional information about design of technical systems: No further data; See Section 7

Components with critical values that require monitoring at the workplace: Not required.

DNELs

Inhalative Worker 19.1 mg/m³ (long-term exposure, systemic effects) (DNEL)

General population 8.17 mg/m³ (long-term exposure, systemic effects) (DNEL)

Additional information: The lists that were valid during compilation were used as a basis.

8.2 Exposure controls

Personal Protective Equipment

General protective and hygienic measures

The usual precautionary measures should be adhered to in handling the chemicals. Wash hands during breaks and at the end of the work. Avoid contact with the eyes and skin.

Breathing equipment

Not required.

Protection of hands

Protective gloves: In case of spray contact at least protection index 2 recommended, according to more than 30 min. penetration time (E 374). Layer thickness of gloves at least: 0.4 mm

In case of prolonged and intensive contact protection index 6 recommended, according to more than 480 min. penetration time (EN 374). Layer thickness of gloves at least: 0.7 mm

Material of gloves

Butyl rubber, BR Fluorocarbon rubber (Viton) Nitrile rubber, NBR

Natural rubber, NR Chloroprene rubber, CR

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection

Safety glasses (DIN 58211, EN 166)

Body protection

Light weight protective clothing



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9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance:
Form: Fluid
Colour: Colourless
Smell: Odourless
Odour threshold: not applicable
pH-value at 20 °C: ~9.6 (original)
Change in condition
Melting point/freezing point: not applicable
Initial boiling point and boiling range: >100 °C
Flash point: not applicable
Inflammability (solid, gaseous): not applicable
Ignition temperature: not applicable
Decomposition temperature: not applicable
Self-inflammability: Not determined.
Explosive properties: Product is not explosive.
Critical values for explosion:
Lower: not applicable
Upper: not applicable
Dust explosion class: not applicable
Oxidising properties: none
Steam pressure: not determined
Density at 20 °C: ~1.5 g/cm³
Evaporation rate: not determined
Solubility in / Miscibility with
Water: Fully miscible
Partition coefficient: n-octanol/water: ca. -2 log POW

10. STABILITY AND REACTIVITY

Reactivity

No further relevant information available

Chemical stability

Thermal decomposition/conditions to be avoided: No decomposition if used according to specifications.

Possibility of hazardous reactions

Reacts with strong acids

Conditions to avoid

No further relevant information available

Materials to avoid

Exothermic reaction with acid

Hazardous decomposition products

Fire can cause release of: Phosphorus oxides (P_xO_y)

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Based on available data, the classification criteria are not met.

7758-11-4 dipotassium hydrogenorthophosphate

Oral LD50 >2,000 mg/kg (rat) (OECD 420)

Dermal LD50 >5,000 mg/kg (rabbit) (OECD 402)

Inhalative LC50 (4 h) >0.83 mg/L (rat) (OECD 403 (READ ACROSS))

Primary irritant effect:

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Serious eye damage/irritation

Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.



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Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic toxicity:

7758-11-4 dipotassium hydrogenorthophosphate

LC50 (96 h) >100 mg/L (rainbow trout) (OECD 203 (READ ACROSS))

EC50 (3 h) >1,000 mg/L (activated sludge) (OECD 209)

EC50 (48 h) >100 mg/L (daphnia magna) (OECD 202 (READ ACROSS))

EC50 (72 h) >100 mg/L (desmodesmus subspicatus) (OECD 201 (READ ACROSS))

12.2 Persistence and degradability No further relevant information available.

Other information:

Inorganic salts are basically not biodegradable.

Easy elimination possible by flocculation or adsorption by sludge.

Behaviour in environmental systems:

Components:

Product should not get in higher quantities into waste water because it may act as a plant nutrient and precipitate heavy metals.

12.3 Bioaccumulative potential

Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected.

12.4 Mobility in soil No further relevant information available.

Ecotoxicological effects:

Other information:

No COD, no BOD, no AOX

No VOC according to EC-directive 1999/13/EC

Additional ecological information:

According to recipe contains the following heavy metals and compounds according to EC guideline NO. 76/464

EC:

none

General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects

No further relevant information available.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Recommendation

Smaller quantities can be disposed with household garbage. Can be deposited with household garbage after consulting with the operator of the waste disposal facility and the pertinent authorities and under adherence to the necessary technical regulations.

European waste catalogue

06 03 14 solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13

Uncleaned packaging:

Recommendation:

Dispose of packaging according to regulations on the disposal of packagings. Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning. Packagings that cannot be cleaned are to be disposed of in the same manner as the product.

Recommended cleaning agent: Water, if necessary with cleaning agent.

14. TRANSPORT INFORMATION

Not classified as dangerous goods in accordance with ADR/RID/IMDG/IATA

15. REGULATORY INFORMATION

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

Directive 2012/18/EU

Named dangerous substances - ANNEX I None of the ingredients is listed.

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Europe (EINECS): yes

Australia (AICS): yes

Canada (DSL): yes

Japan (ENCS): yes

China (IECSC): yes

Korea (KECI): yes

USA (TSCA): yes

Philippines (PICCS): yes

15.2 Chemical safety assessment:

A Chemical Safety Assessment has been carried out.

This product is not classified as hazardous and therefore there is no obligation for establishing an eSDS by law.

16. OTHER INFORMATION**Abbreviations and acronyms**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

Source of key data used to compile the data sheet

Supplier information

Modifications from last revision

First Issue

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