



**PRODUCT: DISODIUM PHOSPHATE BK FOOD GRADE (DSPBF)**  
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<b>PRODUCT SPECIFICATION</b>	
Product Name	Disodium Phosphate BK Food Grade
Alternative Names	Disodium monohydrogen monophosphate, Disodium orthophosphate, Secondary sodium phosphate
Specification Reference	71120/3 (21/01/0043280)
<b>SALES SPECIFICATION</b>	
Description	White Powder
Chemical Formula	$\text{Na}_2\text{HPO}_4$
<b>Specification</b>	
$\text{P}_2\text{O}_5$ -content	49.5 – 50.5 %
Disodium phosphate	min. 98 %
pH value (1 %)	9.0 – 9.6
Arsenic (As)	max. 1 ppm
Lead (Pb)	max. 1 ppm
Cadmium (Cd)	max. 1 ppm
Mercury (Hg)	max. 1 ppm
Fluoride (F)	max. 10 ppm
Insoluble in water	max. 0.2 %
Loss on drying	max. 5.0 %
Bulk density	approx. 1000 g/l
<b>Additional information</b>	
<b>Usage</b>	
Stabilisation of dairy products	
<b>Storage</b>	
Store in a cool, dry place. Keep away from moisture	
<b>NOTES</b>	
<b>Exclusion of Liability</b>	
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Any information or advice obtained from Tennants otherwise than by means of this publication and whether relating to Tennants materials or other materials, is also given in good faith. However, it remains at all times the responsibility of the customer to ensure that Tennants materials are suitable for the particular purpose intended.	
Tennants accepts no liability whatsoever (except as otherwise provided by law) arising out of the use of information supplied, the application, adaptation or processing of the products described herein, the use of other materials in lieu of Tennants materials or the use of Tennants materials in conjunction with such other materials.	
<b>Health and Safety</b>	
A Material Safety Data Sheet has been issued describing the health, safety and environmental properties of this product, identifying the potential hazards and giving advice on the handling precautions and emergency procedures. This must be consulted fully before handling, storage and use.	



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**SAFETY DATA SHEET**

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY**

**1.1 Product Identifier**

Product Name Disodium Phosphate  
CAS Number 7558-79-4  
EINECS Number 231-448-7  
EU REACH Registration Number 01-2119489797-11-XXXX

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

Formulation additive. Corrosion inhibitors. Detergents. Water treatment. Water conditioner. Additive for cosmetic or pharmaceutical preparations. Food additives

**Uses advised against:** Uses other than those recommended.

**1.3 Details of the supplier of the safety data sheet**

Tennants Distribution Limited  
Hazelbottom Road  
Cheetham  
Manchester  
M8 0GR  
Tel: 44(0)161 205 4454  
Fax: 44(0) 161 203 4298  
Email: [msds@tennantdistribution.com](mailto:msds@tennantdistribution.com)

**1.4 Emergency telephone number**

Tel: 44(0)844 335 0001 (24 hours)

**2. HAZARDS IDENTIFICATION**

**2.1 Classification of the substance or mixture**

**Classification according to Regulation (EC) No 1272/2008**

The substance is not to be classified according to the CLP regulation.

**Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Void

Information concerning particular hazards for human and environment: Void

**Classification system:**

The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

**2.2 Label Elements**

**Labelling according to Regulation (EC) No 1272/2008:** Void

**Hazard pictograms:** Void

**Signal word:** Void

**Hazard statements:** Void

**2.3 Other hazards**

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 Substances**

Chemical identity: Disodium phosphate  
CAS number: 7558-79-4  
EINECS number: 231-448-7

**4. FIRST AID MEASURES**

**4.1 Description of first aid measures**

**General**

Instantly remove any clothing soiled by the product.

**Eye Contact**

Rinse opened eye for several minutes under running water. Then consult doctor.

**Skin contact**

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

**Inhalation**

Supply fresh air; consult doctor in case of symptoms.



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### Ingestion

Rinse out mouth and then drink plenty of water (approx. 500 ml). In case of persistent symptoms consult doctor. Do not induce vomiting.

### 4.2 Most import symptoms and effects, both acute and delayed

Gastric or intestinal trouble Diarrhoea

### 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 agents

Use fire fighting measures that suit the environment.

CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with foam.

**For safety reasons unsuitable extinguishing agents** Water with a full water jet.

### 5.2 Special hazards arising from the substance or mixture

Fire can cause release of : Phosphorus oxides (PxOy), sodium oxide

### 5.3 Advice for fire-fighters

#### Protective equipment:

Wear self-contained breathing apparatus.

Do not inhale explosion gases or combustion gases.

#### Additional information

Collect contaminated fire fighting water separately. It must not enter drains.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Avoid causing dust. 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

Collect mechanically.

### 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

Prevent formation of dust.

Ensure good ventilation/exhaustion at the workplace.

#### Information about protection against explosions and fires:

The product is not flammable. No special measures required.

### 7.2 Conditions for safe storage, including any incompatibilities

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

**Information about storage in one common storage facility:** Do not store together with acids.

**Further information about storage conditions:** Store in cool, dry conditions in well-sealed containers. This product is hygroscopic.

### 7.3 Specific end use(s)

No further relevant information available

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Additional information about design of technical systems:** No further data; see section 7.

### 8.1 Control parameters

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

#### Additional information

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

General dust exposure limit, measured as alveolic part German TRGS 900 (2015) 1.25 mg/m<sup>3</sup>

#### DNELs

Oral General population 0.2 mg/kg bw/day (long-term exposure, systemic effects)

Inhalative Worker 15.5 mg/m<sup>3</sup> (long-term exposure, systemic effects)

General population 6.63 mg/m<sup>3</sup> (long-term exposure, systemic effects)



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### 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

Use breathing protection in case of insufficient ventilation. Dust mask according to DIN EN 140 or 149 (FFP1 or FFP2)

#### Protection of hands

#### Protective gloves

In case of spray contact at least protection index 2 recommended, according to more than 30 min. penetration time (EN 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

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance	Powder White
Odour	Odourless
Odour threshold	Not applicable
pH-value	~9
Melting point/freezing point	~ 250 °C
Initial boiling point and boiling range	Not determined
Flash point	Not applicable
Inflammability (solid, gaseous)	Product is not inflammable.
Ignition temperature	Not applicable
Decomposition temperature	Not determined
Self-inflammability	Not applicable
Explosive properties	
Critical values for explosion	Product is not explosive.
Lower	Not applicable
Upper	Not applicable
Dust explosion clas	Not applicable
Oxidising properties	none
Steam pressure	Not applicable
Density	
Settled apparent density	~1000 kg/m <sup>3</sup>
Evaporation rate	Not applicable
Solubility in / Miscibility with Water at 20 °C	~ 70 g/l
Partition coefficient: n-octanol/water	~ - 2 log POW
Viscosity	
Dynamic	Not applicable
Kinematic	Not applicable

### 9.2 Other information

No further relevant information available

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

No further relevant information available.

### 10.2 Chemical stability

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

### 10.3 Possibility of hazardous reactions

Exothermic reaction



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### 10.4 Conditions to avoid

Exposure to moisture.

### 10.5 Incompatible materials

Exothermic reaction with acid.

Alkaloids

Lead acetate

Chloral hydrate

Pyrogallol

Resorcinol

Phenazone

### 10.6 Hazardous decomposition products

Fire can cause release of : Phosphorus oxides (PxOy) sodium oxide

**Additional information:** This product is hygroscopic.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

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

**LD/LC50 values that are relevant for classification: 7558-79-4 Disodiumphosphate**

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

Dermal LD50 >2,000 mg/kg (rat) (OECD 402 (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

**Repeated dose toxicity** No further relevant information available.

#### 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.

**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

**7558-79-4 Disodiumphosphate**

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

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

### 12.2 Persistence and degradability

Inorganic salts are basically not biodegradable.

**Other information:** 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:

##### 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.



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### 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:

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. Dispose of packaging according to regulations on the disposal of packagings.

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

### 14. TRANSPORT INFORMATION

Not classified as hazardous goods within the meaning of transportation

### 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** Substance is not listed.

##### Inventory Status

Europe (EINECS): Listed

Australia (AICS): Listed

Canada (DSL): Listed

Japan (ENCS): Listed

China (IECSC): Listed

Korea (KECI): Listed

USA (TSCA): Listed

Philippines (PICCS): Listed

New Zealand (NZIOCL): Listed

#### 15.2 Chemical safety assessment

A chemical safety assessment has been carried out for this product

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

### 16. OTHER INFORMATION

#### Source of key data used to compile the data sheet

Supplier information

#### Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organization

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 Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

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

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

#### Modifications from last revision

The Specification and Safety Data Sheet have been revised in accordance with current data.

**Date:** 11/01/2021

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