

PRODUCT: **POTASSIUM TRIPOLYPHOSPHATE FOOD GRADE** (POTRFG) REVISION: 1 30/01/2023 1 OF 7**PRODUCT SPECIFICATION**

Product Name	Potassium Tripolyphosphate
Synonyms	Pentapotassium triphosphate
Product Grade	Food Grade
Specification Reference	POTRFG/1 (23/01/0043280)

SALES SPECIFICATION

Property	Value
Appearance	White powder
P ₂ O ₅ content	47.0 – 48.0%
Potassium Tripolyphosphate	Min. 85.0%
pH value (1% solution)	9.6 – 10.2
Bulk density	900 – 1100 g/l
Loss on glowing	Max. 0.4%
Insoluble in water	Max. 2.0%
Arsenic (As)	Max. 1 ppm
Lead (Pb)	Max. 1 ppm
Cadmium (Cd)	Max. 1 ppm
Fluoride (F)	Max. 10 ppm
Mercury (Hg)	Max. 1 ppm

Further information**Approval**

The product meets the relevant standards/purity criteria for food additives according to JECFA-standards of the FAO/WHO, EU and FCC

Storage

Store in a cool dry place. Keep away from moisture.

Shelf life

3 years

NOTES**Exclusion of Liability**

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PRODUCT: **POTASSIUM TRIPOLYPHOSPHATE FOOD GRADE** (POTRFG) REVISION: 1 30/01/2023 2 OF 7**SAFETY DATA SHEET****1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY****1.1 Product Identifier**

Product Name Potassium Tripolyphosphate
CAS Number 13845-36-8
EC Number 237-574-9
REACH Registration Number 01-2119485639-19-XXXX

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

Alkaline cleaner/detergent
Construction chemical
Water conditioner
Water treatment chemical
Food additive
Cosmetic additive

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@tennantsdistribution.com

1.4 Emergency telephone number

Tel: +44(0) 844 3350001 (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 classified according to the CLP regulation.

2.2 Label elements

This substance is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

Hazard statements

This substance is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

2.3. Other hazards

This product contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at concentrations of $\geq 0.1\%$.

Aqueous solutions or powders that become wet produce extremely slippery conditions.

Endocrine Disruptor Information

Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Chemical characterisation: Substances**

Chemical name	EC No	Weight %	Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
pentapotassium triphosphate 13845-36-8	237-574-9	100	-	-	01-2119485639-19-XXXX



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4. FIRST AID MEASURES
4.1 Description of first aid measures
Inhalation Remove to fresh air. (Call a physician if symptoms occur).
Ingestion Rinse out mouth and then drink plenty of water (approx. 500 ml). In case of persistent symptoms consult doctor.
Skin contact Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.
Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
4.2 Most important symptoms and effects, both acute and delayed No information available
4.3 Indication of any immediate medical attention and special treatment needed Treat symptomatically and supportively
5. FIRE FIGHTING MEASURES
5.1 Extinguishing Media Suitable Extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Unsuitable extinguishing media Full water jet.
5.2 Special hazards arising from the substance or mixture May emit toxic fumes under fire conditions. Aqueous solutions or powders that become wet produce extremely slippery conditions. Hazardous combustion products Fire can cause release of: Phosphorus oxides.
5.3 Advice for fire-fighters Special protective equipment and precautions for fire-fighters Fire-fighters should wear self-contained breathing apparatus and full firefighting turnout gear. Cool containers with water spray. Contain runoff to prevent entry into water or drainage systems.
6. ACCIDENTAL RELEASE MEASURES
6.1 Personal precautions, protective equipment and emergency procedures Ensure adequate ventilation. Avoid generation of dust. Aqueous solutions or powders that become wet produce extremely slippery conditions.
6.2 Environmental precautions Should not be released into the environment. See Section 12 for additional Ecological Information.
6.3 Methods and material for containment and cleaning up Methods for containment Prevent further leakage or spillage if safe to do so. Methods for cleaning up Pick up and transfer to properly labelled containers.
6.4 Reference to other sections See section 8 for more information. See section 13 for more information.
7. HANDLING AND STORAGE
7.1 Precautions for safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid generation of dust. Aqueous solutions or powders that become wet produce extremely slippery conditions.
7.2 Conditions for safe storage, including any incompatibilities Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Keep away from Incompatible materials. German storage class (TRGS 510) Storage class 13 - Non-combustible solids that cannot be assigned to any of the above storage classes
7.3. Specific end use(s) Specific use(s) No specific requirements. Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.



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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Exposure Limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Biological occupational exposure limits

No relevant information available

DNEL's

13845-36-8 Pentapotassium triphosphate

Inhalative

General population 1.45 mg/m³ (long-term exposure, systemic effects)

Worker 5.88 mg/m³ (long-term exposure, systemic effects)

8.2 Exposure controls

Engineering controls

Eyewash stations

Showers

Ventilation systems

Personal protective equipment

Respiratory protection

Not normally required; In case of dust formation use an approved particulate respirator Dust mask according to DIN EN 140 or 149 (FFP1 or FFP2)

Hand protection

Butyl rubber

Natural rubber

Nitrile rubber

Neoprene gloves

Fluorocarbon rubber (Viton)

Chloroprene gloves

Eye/face protection

Chemical safety goggles.

Body protection

Wear suitable protective clothing.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Solid
Appearance	Powder
Colour	White
Odour	Odourless
Melting point / freezing point	~614 °C
Boiling point / boiling range	No data available
Flammability (solid, gas)	No data available
Flammability Limit in Air	
Upper flammability or explosive limits	No data available
Lower flammability or explosive limits	No data available
Flash point	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
pH	~9.9
pH (as aqueous solution)	No data
Kinematic viscosity	No data available
Dynamic viscosity	No data available
Water solubility	No data available
Solubility(ies)	No data available
Partition coefficient	No data available
Vapor pressure	No data available
Relative density	No data available
Bulk density	No data available



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Liquid Density	No data available
Vapor density	No data available
Particle characteristics	
Particle Size	No information available
Particle Size Distribution	No information available
9.2 Other information	
No further relevant information available	
10. STABILITY AND REACTIVITY	
10.1 Reactivity	
No reactive hazards known/expected.	
10.2 Chemical stability	
Stable under normal conditions.	
Explosion data	
Sensitivity to mechanical impact None.	
Sensitivity to static discharge None.	
10.3 Possibility of hazardous reactions	
Strong exothermic reaction with acids. Reacts with light alloys in the presence of moisture to form hydrogen. Contact with water generates heat.	
10.4 Conditions to avoid	
Exposure to moisture.	
10.5 Incompatible materials	
Strong acids. Aluminium. light alloys.	
10.6 Hazardous decomposition products	
Fire can cause release of:. Phosphorus oxides.	
11. TOXICOLOGICAL INFORMATION	
11.1 Information on toxicological effects	
Acute toxicity	
LD/LC50 values that are relevant for classification:	
LD50: oral >2000 mg/kg rat. OECD 420	
LD50: dermal >4640 mg/kg rabbit	
LC50: inhalation >0.39 mg/L rat, 4h, EPA OPP 81-3, read-across	
Delayed and immediate effects as well as chronic effects from short and long-term exposure	
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.	
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.	
Endocrine disrupting properties	
No endocrine disrupting properties are known.	
Other adverse effects	
No information available.	

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12. ECOLOGICAL INFORMATION
12.1 Toxicity Ecotoxicity: Algae/aquatic plants: EC50: > 900 mg/L (7d, Skeletonema costatum, AFNOR T95E - doc 50F, read across) Fish: LC50: 1850 mg/L (24h, Danio rerio, NF T90-303 (AFNOR 1985a), read across) Toxicity to micro-organisms: EC50: > 1000 mg/L (3h, activated sludge, OECD 209, read across) Crustacea: EC50: >100 mg/L (48h, daphnia magna, 40 CFR 797.1930, read across)
12.2 Persistence and degradability Biodegradation is not relevant for inorganic salts. Easy elimination possible by flocculation or adsorption by sludge.
12.3 Bioaccumulation potential Not bioaccumulative
12.4 Mobility in soil No information available.
12.5 Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable.
12.6 Other adverse effects Product should not get in higher quantities into wastewater because it may act as a plant nutrient and precipitate heavy metals. Endocrine disrupting properties No endocrine disrupting properties are known.
13. DISPOSAL CONSIDERATIONS
13.1 Waste treatment methods Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. Contaminated packaging Dispose of contents/containers in accordance with local regulations. .
14. TRANSPORT INFORMATION
ADR/RID/IMDG/ICAO/IATA Not regulated as dangerous goods under transport regulations
15. REGULATORY INFORMATION
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture National regulations Germany Water hazard class (WGK) slightly hazardous to water (WGK 1) European Union Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work. Authorisations and/or restrictions on use: This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII) REGULATION (EU) 2019/1148 on the marketing and use of explosives precursors Not applicable Persistent Organic Pollutants Not applicable Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not applicable International Inventories GHS hazardous component CAS registry numbers appearing in section 3 may differ from substances appearing in section 15 due to country or regional chemical inventory coverage requirements, however, remain in compliance with the inventory Products that are used as food additives are exempt from listing in international chemical inventories Chemical inventories: All ingredients listed in: TSCA Listed or exempted DSL Listed or exempted ENCS Listed or exempted IECSC Listed or exempted KECL Listed or exempted



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PICCS	Listed or exempted
TCSI	Listed or exempted
AIIC	Listed or exempted
NZIoC	Listed or exempted
NCI	Listed or exempted
NSQ	Listed or exempted
TECI	Listed or exempted

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL - Canadian Domestic Substances List
ENCS - Japan Existing and New Chemical Substances IECSC –
China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
TCSI - Taiwan Chemical Substance Inventory
AIIC - Australian Inventory of Industrial Chemicals
NCI - Vietnam National Chemicals Inventory
NSQ - Mexico National Inventory of Chemical Substances
NZIoC - New Zealand Inventory of Chemicals
TECI - Thailand Inventory FDA Existing Chemicals

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance.

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 Organisation

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

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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Modifications from last revision

First issue

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