

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

Product identifier: Tetra Potassium Pyrophosphate
CAS: 7320-34-5
Other means of identification: Non-applicable

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

Relevant uses: Chemical industry. For professional users/industrial user only.

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2. HAZARDS IDENTIFICATION

Classification of the substance or mixture:

GB CLP Regulation: Classification of this product has been carried out in accordance with GB CLP Regulation.
Eye Irrit. 2: Eye irritation, Category 2, H319

Label elements:

GB CLP Regulation:



Warning.

Hazard statements:

Eye Irrit. 2: H319 - Causes serious eye irritation.

Precautionary statements:

P264: Wash thoroughly after use.
P280: Wear protective gloves/protective clothing/respiratory protection/eye protection/protective footwear.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical advice/attention.

Other hazards: Product fails to meet PBT/vPvB criteria.

[cont...]

SAFETY DATA SHEET
Tetra Potassium Phosphate

Issued: 30/05/2023

Page 2

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance:

Chemical description: Chemical substance.

Components:

In accordance with Annex II of The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020, the product contains:

| Identification | Chemical name/Classification | Concentration |
|----------------|---|---------------|
| CAS: 7320-34-5 | Tetra Potassium pyrophosphate Eye Irrit. 2: H319 - Warning | 75 - <100 % |

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

Mixture: Non-applicable.

4. FIRST AID MEASURES

Description of first aid measures: The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation: This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact: In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of changes to the skin (stinging, redness, rashes, blisters), seek medical advice with this Safety Data Sheet.

By eye contact: Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration: In case of consumption, seek immediate medical assistance showing the SDS for the product.

Most important symptoms and effects, both acute and delayed: Acute and delayed effects are indicated in sections 2 and 11.

Indication of any immediate medical attention and special treatment needed: Non-applicable.

[cont...]

5. FIRE-FIGHTING MEASURES

Extinguishing media:

Suitable extinguishing media: Product is non-flammable under normal conditions of storage, handling and use. In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

Unsuitable extinguishing media: Non-applicable.

Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

Advice for firefighters: Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit).

Additional provisions: Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel: Sweep up and shovel product or collect by other means and place in container for reuse (preferred) or disposal.

For emergency responders: Wear protective equipment. Keep unprotected persons away. See section 8.

Environmental precautions: This product is not classified as hazardous to the environment. Keep product away from drains, surface and ground water.

Methods and material for containment and cleaning up:

It is recommended: Sweep up and shovel product or collect by other means and place in container for reuse (preferred) or disposal.

Reference to other sections: See sections 8 and 13.

7. HANDLING AND STORAGE

Precautions for safe handling:

A.- General precautions for safe use: Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights. Maintain order, cleanliness and dispose of using safe methods (section 6).

B.- Technical recommendations for the prevention of fires and explosions:

Due to its non-inflammable nature, the product does not present a fire risk under normal conditions of storage, handling and use.

C.- Technical recommendations on general occupational hygiene:

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks:

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage:

Minimum Temp.: 2 °C
Maximum Temp.: 35 °C
Maximum time: 24 Months

B.- General conditions for storage: Avoid sources of heat, radiation, static electricity and contact with food.
For additional information see subsection 10.5

Specific end use(s): Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace:

Nuisance dust: Inhalable dust 10 mg/m³ // Respirable dust 4 mg/m³

DNEL (Workers):

| Identification | | Short exposure | | Long exposure | |
|-------------------------------|------------|----------------|----------------|-------------------------|----------------|
| | | Systemic | Local | Systemic | Local |
| Tetra Potassium pyrophosphate | Oral | Non-applicable | Non-applicable | Non-applicable | Non-applicable |
| CAS: 7320-34-5 | Dermal | Non-applicable | Non-applicable | Non-applicable | Non-applicable |
| EC: 230-785-7 | Inhalation | Non-applicable | Non-applicable | 17.63 mg/m ³ | Non-applicable |

SAFETY DATA SHEET

Tetra Potassium Phosphate

Issued: 30/05/2023

Page 5

DNEL (General population):

| Identification | | Short exposure | | Long exposure | |
|-------------------------------|------------|----------------|----------------|------------------------|----------------|
| | | Systemic | Local | Systemic | Local |
| Tetra Potassium pyrophosphate | Oral | Non-applicable | Non-applicable | Non-applicable | Non-applicable |
| CAS: 7320-34-5 | Dermal | Non-applicable | Non-applicable | Non-applicable | Non-applicable |
| EC: 230-785-7 | Inhalation | Non-applicable | Non-applicable | 4.35 mg/m ³ | Non-applicable |

PNEC: Non-applicable.

Exposure controls:

A.- Individual protection measures, such as personal protective equipment:

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<UKCA marking>>. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection), consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection:

| Pictogram | PPE | Remarks |
|-----------------------------|---------------------------|--|
| Compulsory use of face mask | Filter mask for particles | Replace when an increase in resistance to breathing is observed. |



C.- Specific protection for the hands:

| Pictogram | PPE | Remarks |
|---------------------------|---------------------------------------|---|
| Mandatory hand protection | Protective gloves against minor risks | Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN 420:2004+A1:2010 and EN ISO 374-1:2016+A1:2018 |



D.- Eye and face protection:

| Pictogram | PPE | Remarks |
|---------------------------|---|---|
| Mandatory face protection | Panoramic glasses against splash/projections. | Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing. |



[cont...]

E.- Body protection:

Pictogram

PPE

Work clothing

Anti-slip work shoes

Remarks

Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994.

Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 20345:2012 y EN 13832-1:2007.

F.- Additional emergency measures:

Emergency measure

Emergency shower



Standards

ANSI Z358-1
ISO 3864-1:2011,
ISO 3864-4:2011

Emergency measure

Eyewash stations



Standards

DIN 12 899
ISO 3864-1:2011,
ISO 3864-4:2011

Environmental exposure controls: In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties: For complete information see the product datasheet.

Appearance:

Physical state at 20 °C: Solid
Appearance: Powdery
Colour: White
Odour: Odourless
Odour threshold: Non-applicable *

Volatility:

Boiling point at atmospheric pressure: Non-applicable *
Vapour pressure at 20 °C: Non-applicable *
Vapour pressure at 50 °C: Non-applicable *
Evaporation rate at 20 °C: Non-applicable *

SAFETY DATA SHEET
Tetra Potassium Phosphate

Issued: 30/05/2023

Page 7

Product description:

| | |
|--|------------------------|
| Density at 20 °C: | 2230 kg/m ³ |
| Relative density at 20 °C: | 2.23 |
| Dynamic viscosity at 20 °C: | Non-applicable * |
| Kinematic viscosity at 20 °C: | Non-applicable * |
| Kinematic viscosity at 40 °C: | Non-applicable * |
| Concentration: | Non-applicable * |
| pH: | Non-applicable * |
| Vapour density at 20 °C: | Non-applicable * |
| Partition coefficient n-octanol/water 20 °C: | Non-applicable * |
| Solubility in water at 20 °C: | >750 kg/m ³ |
| Solubility properties: | Highly water-soluble |
| Decomposition temperature: | Non-applicable * |
| Melting point/freezing point: | 1100 °C |

Flammability:

| | |
|----------------------------|------------------|
| Flash Point: | Non-applicable |
| Flammability (solid, gas): | Non-applicable * |
| Autoignition temperature: | Non-applicable * |
| Lower flammability limit: | Non-applicable * |
| Upper flammability limit: | Non-applicable * |

Explosive (Solid):

| | |
|------------------------|------------------|
| Lower explosive limit: | Non-applicable * |
| Upper explosive limit: | Non-applicable * |

Particle characteristics:

| | |
|-----------------------------|------------------|
| Median equivalent diameter: | Non-applicable * |
|-----------------------------|------------------|

Other information:

Information with regard to physical hazard classes:

| | |
|-----------------------|------------------|
| Explosive properties: | Non-applicable * |
| Oxidising properties: | Non-applicable * |
| Corrosive to metals: | Non-applicable * |
| Heat of combustion: | Non-applicable * |

Aerosols-total percentage (by mass) of flammable components: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

Other safety characteristics:

| | |
|---------------------------|------------------|
| Surface tension at 20 °C: | Non-applicable * |
| Refraction index: | Non-applicable * |

*Not relevant due to the nature of the product, not providing information property of its hazards.

[cont...]

10. STABILITY AND REACTIVITY

Reactivity: No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

Chemical stability: Chemically stable under the indicated conditions of storage, handling and use.

Possibility of hazardous reactions: Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

Conditions to avoid:

Applicable for handling and storage at room temperature:

| Shock and friction | Contact with air | Increase in temperature | Sunlight | Humidity |
|--------------------|------------------|-------------------------|----------------|----------------|
| Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |

Incompatible materials:

| Acids | Water | Oxidising materials | Combustible materials | Others |
|--------------------|----------------|---------------------|-----------------------|-------------------------------|
| Avoid strong acids | Not applicable | Not applicable | Not applicable | Avoid alkalis or strong bases |

Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: Carbon dioxide (CO₂), carbon monoxide and other organic compounds.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects:

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

A- Ingestion (acute effect): Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for consumption. For more information see section 3.
Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

B- Inhalation (acute effect): Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for inhalation. For more information see section 3.
Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

Contact with the skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for skin contact. For more information see section 3.

Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.

IARC: Non-applicable.

Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

E- Sensitizing effects:

Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.

Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

Other information:

Non-applicable.

Product-specific toxicological information:

| Acute toxicity | Genus |
|------------------------|--------|
| LD50 dermal 4640 mg/kg | Rabbit |

SAFETY DATA SHEET

Tetra Potassium Phosphate

Issued: 30/05/2023

Page 10

Specific toxicology information on the substances:

| Identification | Acute toxicity | | Genus |
|-------------------------------|-----------------|-------------|--------|
| Tetra Potassium pyrophosphate | LD50 oral | >5000 mg/kg | Rabbit |
| CAS: 7320-34-5 | LD50 dermal | 4640 mg/kg | |
| | LC50 inhalation | >5 mg/L | |

12. ECOLOGICAL INFORMATION

Contains phosphates. Excessive discharge may cause eutrophication.

Toxicity: Not available.

Persistence and degradability: Not available.

Bioaccumulative potential: Not available.

Mobility in soil: Not available.

Results of PBT and vPvB assessment: Product fails to meet PBT/vPvB criteria.

Other adverse effects: Not described.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

| Code | Description | Waste class |
|------|---|-------------|
| - | It is not possible to assign a specific code, as it depends on the intended use by the user | Dangerous |

Type of waste: HP4 Irritant — skin irritation and eye damage.

Waste management (disposal and evaluation): Consult the authorized waste service manager on the assessment and disposal operations in accordance The Waste Regulations 2011, 2011 No. 988. As under 15 01 of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. Waste should not be disposed of to drains. See paragraph 6.2.

Regulations related to waste management: In accordance with Annex II of UK REACH the provisions related to waste management are stated: UK legislation: The Waste Regulations 2011.

14. TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2021 and RID 2021:

| | | |
|--------------------------------------|-------------------------------------|----------------|
| UN number: | Non-applicable | |
| UN proper shipping name: | Non-applicable | |
| Transport hazard class(es): | Non-applicable | |
| Labels: | Non-applicable | |
| Packing group: | Non-applicable | |
| Environmental hazards: | No | |
| Special precautions for user: | Tunnel restriction code: | Non-applicable |
| | Physico-Chemical properties: | See section 9 |

Transport in bulk according to Annex II of Marpol and the IBC Code: Non-applicable

[cont...]

SAFETY DATA SHEET
Tetra Potassium Phosphate

Issued: 30/05/2023

Page 11

Transport of dangerous goods by sea:

With regard to IMDG 40-20:

UN number: Non-applicable
UN proper shipping name: Non-applicable
Transport hazard class(es): Non-applicable
Labels: Non-applicable
Packing group: Non-applicable
Marine pollutant: No
Special precautions for user: **Special regulations:** Non-applicable
EmS Codes:
Physico-Chemical properties: See section 9
Limited quantities: Non-applicable
Segregation group: Non-applicable
Transport in bulk according to Annex II of Marpol and the IBC Code: Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2022:

UN number: Non-applicable
UN proper shipping name: Non-applicable
Transport hazard class(es): Non-applicable
Labels: Non-applicable
Packing group: Non-applicable
Environmental hazards: No
Special precautions for user: **Physico-Chemical properties:** See section 9
Transport in bulk according to Annex II of Marpol and the IBC Code: Non-applicable

15. REGULATORY INFORMATION

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

Substances listed in UK candidate list of substances of very high concern (SVHCs): Non-applicable.

Substances listed in UK REACH Authorisation List (Annex 14): Non-applicable.

The Control of Major Accident Hazards Regulations 2015: Non-applicable.

Restrictions to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII UK REACH):

Non-applicable.

Note: The regulatory information given above only indicates the principal regulations specifically Applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

[cont...]

16. OTHER INFORMATION

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road.
IMDG: International maritime dangerous goods code.
IATA: International Air Transport Association.
ICAO: International Civil Aviation Organisation.
COD: Chemical Oxygen Demand.
BOD5: 5day biochemical oxygen demand.
BCF: Bioconcentration factor.
LD50: Lethal Dose 50.
LC50: Lethal Concentration 50.
EC50: Effective concentration 50.
LogPOW: Octanolwater partition coefficient.
Koc: Partition coefficient of organic carbon.
UFI: unique formula identifier.
IARC: International Agency for Research on Cancer.

Legal disclaimer:

The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation. This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.