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Technical Data Sheet

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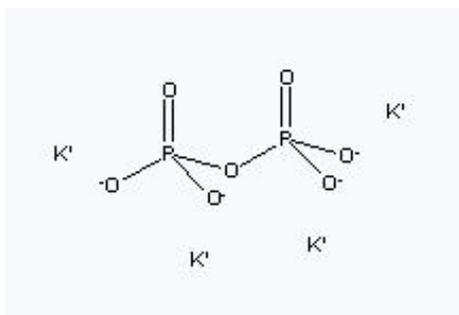
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Potassium Pyrophosphate

Product Information

Chemical Name	Potassium pyrophosphate
CAS #	7320-34-5
Formula	$K_4O_7P_2$
Molecular Weight	330.336522
Synonyms	Tetrapotassium diphosphate;Potassium diphosphate tetrabasic
Chemical Structure	



Description

Potassium pyrophosphate, known as Tetrapotassium diphosphate, is a kind of white powder or crystal granules. It is of high hygroscopicity exposed to the air. Potassium pyrophosphate is easily soluble in water but insoluble in ethanol. Its aqueous solution is alkaline. It can be typically used to prevent food from corruption and fermentation.

Physical Properties

Melting point, °C .	1109
Density @ 25°C, g/ml	2.534
Index of Refraction	2.33
Boiling point, °C	>1500

Specification

Food Grade

Appearance	White powder
Content(As $K_4P_2O_7$)	≥95.0%
As	≤0.0003%

Fluorides(F)	≤0.001%
Lead	≤0.0005%
pH	10.0-10.7
Heavy metals(Pb)	≤0.002%
Insoluble substances	≤0.1%
Loss on ignition	≤0.5%

Industry Grade

Appearance	White powder
Orthophosphate	Qualified
Potassium pyrophosphate(K ₄ P ₂ O ₇)	≥98%
pH (1% aqueous solution)	10.5±0.5
Phosphoric anhydride (P ₂ O ₅)	≥42.2
Potassium oxide (K ₂ O)	≥56.5%
Water insoluble matter	≤0.1%
Heavy metals (Pb)	≤0.003%
Chlorine (Cl)	≤0.45%
Iron (Fe)	≤0.01%

Safety

During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Skin: Wear appropriate protective gloves to prevent skin exposure. Clothing: Wear appropriate protective clothing to prevent skin exposure. Always refer to the Material Safety Data Sheet (MSDS).

Applications

It is a kind of substance used in detergents and surfactants and food additives.

Food Grade:

Potassium pyrophosphate is used as emulsifier, quality improver and metal ion, etc. In food production. Additionally, it is used in flour products with alkaline water. Mixing other phosphates can prevent canned aquatic products from the growth of guanine and helps to keep canned aquatic products color preserved. Accretion of potassium pyrophosphate in ice cream can increase the overrun of itself. Especially, it can increase the swelling of ice cream, improve the flavour of cakes and pastries, and prevent the cheese from aging.

Industry Grade:

Regarding industry grade Potassium pyrophosphate, it is mainly used for cyanide electroplating complexing agent, metal surface cleaning agent and the production of dye dispersants gentle granule, etc.

Packaging

25kg per woven bag with inner plastic bag, 23 tons per 20 feet container without pallets and 22 tons if palletted.

Storage & Handling

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation.

Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. The toxicological properties of this substance have not been fully investigated. Inhalation of dust may cause respiratory tract irritation. Can produce delayed pulmonary edema. Causes irritation of the mucous membrane and upper respiratory tract. Always refer to the Material Safety Data Sheet (MSDS) for detailed information on handling and disposal.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchant ability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if we has been advised of the possibility of such damages.