

	Material Safety Data Sheet(MSDS)	Date of establishment	June, 3, 1996.
	Potassium pyro phosphate	Date of revision	Novmber, 30, 2020.
		Page	1/8

## 1. Product and Company Identification

- A. Product name : Potassium pyro phosphate
- B. Relevant identified uses of the substance or mixture and uses advised against
- Recommended Use : pH buffering agent, emulsifying agent and dispersing agent, protein stabilizer and discoloring agent, Tissue improving agent for noodles, binding agent for fish meat processing, feathering protection, Prevention of aggregation, antiscales
  - Usage Limits : No data available
- C. Details of the supplier of the safety data sheet
- Company : YOUNGJIN CORECHEM INC.
  - Address : 1055 Yedeok-ro, Godeok-myen, Yesan-gun, chungcheongnam-do, Korea
  - Department : Quality Control Department
  - Telephone : 82-41-338-7317

## 2. Hazards Identification

- A. Classification of the substance
- Acute toxicity (oral): Category 4
  - Specific target organ toxicity( single exposure)- Category 3

B. Label elements

- Pictogram



- Signal word: Warning
- Hazardous statement
  - H302 : Harmful if swallowed
  - H335 : May cause respiratory irritation
- Precautionary statement
  - P261 : Avoid breathing dust/fume/gas/mist/vapours/spray.
  - P264 : Wash ... thoroughly after handling.
  - P270 : Do not eat, drink or smoke when using this product.
  - P271 : Use only outdoors or in a well-ventilated area.
  - P280 Wear protective gloves/protective clothing/ eye protection/face protection.

	Material Safety Data Sheet(MSDS)	Date of establishment	June, 3, 1996.
	Potassium pyro phosphate	Date of revision	Novmber, 30, 2020.
		Page	2/8

○ Respond

P301+P312 : IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P304+P340 : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P312 : Call a POISON CENTER or doctor/physician you feel unwell.

P330 : Rinse mouth.

○ Storage

P403+P233 Store in a well-ventilated place, keep container tightly closed.

○ Disposal

P501 Dispose of container in conformity with relevant regulations.

### 3. Composition, Information on Ingredients

Chemical Name	Synonym	CAS No.	EC NO.	Percent (%)
Potassium Pyro Phosphate	Potassium Pyro Phosphate (tetra kalium Pyro Phosphate)	7320-34-5	230-785-7	100%

### 4. First Aid Measures

A. Eye Contact

- If exposed, rinse eyes immediately with running water more than 20 minutes.
- Seek medical attention immediately.

B. Skin Contact

- If exposed, rinse skin immediately with running water more than 20 minutes.
- Remove and isolate contaminated clothing and shoes.
- Wash contaminated clothing thoroughly before re-use.
- Receive medical treatment immediately.

C. Inhalation

- Take emergency medical treatment.
- Move victim to well-ventilated place.
- If breathing is hard, supply oxygen.
- If victim is not breathing, perform artificial respiration.

D. Ingestion

- Do not put anything to eat into unconscious victim's mouth.

E. Other medical notices.

	Material Safety Data Sheet(MSDS)	Date of establishment	June, 3, 1996.
	Potassium pyro phosphate	Date of revision	Novmber, 30, 2020.
		Page	3/8

- Let medical personnel recognize the material and take protective measure.

## 5. Explosion / Fire Fighting Measures

### A. Appropriate (and inappropriate) Extinguishing Media

- Inappropriate : High-pressure water (inappropriate)
- Suitable extinguishing:
  - Great fire : Water spray/mist, normal foam.
  - Small fire: dry sand, desiccant, alcohol resistant foam, water spray, normal foam, CO2.

### B. Specific Hazards in Presence of Chemical Substances

- If boiled, container may explode.
- Inhalation may be hazardous.
- May burn partly, does not ignite easily.
- Fire can cause irritative and corrosive gas from material.

### C. Precaution and Protective equipments for Fire Fighting

- Keep proper distance while extinguishing.
- Be cautious, substance may be transported in molten state.
- Leakage may cause contamination.
- Dig a ditch to dispose fire fighting water and keep material not dispersed.
- If not dangerous, move container from fire area.
- Fire involving Tanks; Extinguish fire in maximum range or use unmanned fire apparatus.
- Fire involving Tanks; After extinguish, cool down container with water spray for considerable time
- Fire involving Tanks; Step back immediately if pressure relief device makes loud sound or tank discolors.
- Fire involving Tanks; Do not approach tank in flames.
- Fire involving Tanks; In case of great fire, if it is impossible to use unmanned fire apparatus, step back and leave it burn.
- Rescuer should use appropriate protective equipment.

## 6. Accidental Release Measures

### A. Require measures and protection to protect human body

- Do not touch and walk on leakage.
- Remove all ignition sources.
- Prevent forming dust.
- Ventilate contaminated area.
- If not dangerous, stop any leakage.

	Material Safety Data Sheet(MSDS)	Date of establishment	June, 3, 1996.
	Potassium pyro phosphate	Date of revision	Novmber, 30, 2020.
		Page	4/8

- Take notice of material and condition to avoid.
- B. Required measures to protect environment
  - Prevent of inflow into waterway, drain, basement, or closed space.
- C. Purification or removal method
  - In case of big leakage, dig a ditch distant from leaked liquid.
  - In case of leakage of powder, cover with plastic sheet to prevent spreading and keep it dry.
  - In case of small leakage, wash out contaminated area with much water.
  - In case of small leakage, use sand and inflammable material to absorb and put in container.
  - Use clear shovel to put leakage into dry container and shut loose and move container away from leakage area.

## 7. Handling & Storage

- A. Safe handling
- Avoid breathing dust, fume, mist.
  - Wear a mask before handling.
  - Wash thoroughly after handling.
  - Follow all precautions of MSDS/LABEL though container is emptied. Product residues can rest.
  - Avoid contact with eyes, skin and clothing.
  - Keep container airtight.
  - Use with care in handling and storage.
  - Use appropriate ventilation.
- B. Safe Storage
- Drain the water out from an empty drum and close properly and put it back to drum regulator or place appropriately.
  - Store container in well-ventilated place and securely airtight.
  - Keep away from food and beverage.

## 8. Exposure Controls & Personal Protection

- A. Chemical Exposure Limits, Biological Exposure Limit
- Korean Regulation : No data available
  - ACGIH Regulation : No data available
  - Biological Exposure Limit : No data available
- B. Engineering Controls

	Material Safety Data Sheet(MSDS)	Date of establishment	June, 3, 1996.
	Potassium pyro phosphate	Date of revision	Novmber, 30, 2020.
		Page	5/8

- Install local exhaust ventilation, use process isolation or other ways to comply tolerable standard.

C. Personal Protective Equipment

Use personal protective equipment that is appropriate to exposed material's physical & chemical properties and authorized by Korean Occupational Safety and Health Act.

○ Respiratory Protection

- When Using Frequently or Severe Exposure Respirators are needed.
- Classified Minimum to Maximum Respiratory concentration.
- Consider Specifications before use.
- Respiratory protective Equipments for Dust, Mist & Hume
- Air Filtering Respirators (Highly Effective Particle Filter)
- Powered Fan attached Respirators (Dust, Mist, Hume Filter)
- Self Contained Respirators attached with Highly Effective Particle Filter.
- In case of Unknown Concentration or Life or Health Emergency
- Air Supplied Respirator(Multi Airline Mask).
- Air Respirator(Face piece)

○ Eyes Protection : Wear dust-proof safety goggles.

○ Hands Protection : Wear appropriate chemical-resistant gloves.

○ Body Protection : Wear higher than Type 5 Chemical Protection.  
(Protective Apron and chemical-resistant rubber boots)

## 9. Physical & Chemical Properties

A. Appearance: White, colorless powder

B. Odor: None.

C. Odor Threshold : No data available

D. PH: 1% solution pH 10.0-10.7

E. Melting point/Freezing point: 1,090°C / No data available.

F. Initial Boiling point and Boiling point range: No data available.

G. Flash point: No data available.

H. Evaporation Rate: No data available.

I. Flammability (solid, gas): nonflammable

J. Low & Upper limit of Flammable or Explosion Range: N/A.

K. Vapor Pressure: 0.0000000206 mmHg(25°C Estimate)

L. Solubility: (1) Water : 187g/100ml(25°C) , (2) alcohol insoluble

M. Vapor Density: no data available.

N. Specific Gravity: 1.1(3Hydrous)

	Material Safety Data Sheet(MSDS)	Date of establishment	June, 3, 1996.
	Potassium pyro phosphate	Date of revision	Novmber, 30, 2020.
		Page	6/8

- O. n-Octanol/water partition coefficient:-10.45( Estimate)
- P. Auto-ignition Temp.: No data available.
- Q. Decomposition Temp.: No data available.
- R. Viscosity: No data available
- S. Molecular Weight and Molecular Formular:  $K_4P_2O_7$  / 330.35

## 10. Stability & Reactivity

- A. Chemical stability and Possibility of hazardous reactions
- If boiled, container may explode.
  - May burn partly, does not ignite easily.
  - Material is nonflammable and does not burn itself, but can decompose and generate corrosive and toxic fume if boiled.
  - Fire causes irritative, corrosive, toxic gas from material.
- B. Chemical Stability :
- Ignition sources like heat, sparks, and fire.
- C. Incompatible Materials
- Combustible substances, toxic gases
- D. Hazardous Decomposition Products
- Corrosive, Toxic, fume, Irritant

## 11. Toxicological Information

- A. Information about possible exposure route : No data available.
- B. Health effect
- Acute toxicity:
    - ORAL : LD50 > 2000 mg/kg Mouse
    - Dermal : LD50 > 4640 mg/kg Rabbit
    - Inhalation : No data available.
  - Skin corrosion/irritation
    - Mild skin irritation
  - Serious eye damage/eye irritation
    - Mild eye irritation
  - Respiratory sensitization : No data available.
  - Carcinogenicity
    - Korea occupational Safety and Health Act : No data available
    - Korea Ministry of Employment and Labor : No data available
    - IARC : No data available
    - OSHA : No data available

	Material Safety Data Sheet(MSDS)	Date of establishment	June, 3, 1996.
	Potassium pyro phosphate	Date of revision	Novmber, 30, 2020.
		Page	7/8

- ACGIH : No data available
- NTP : No data available
- EU : No data available
- Germ cell mutagenicity : No data available.
- Toxic to reproduction : No data available
- Specific target organ toxicity following single exposure :  
Causes irritation of the respiratory system, may cause pulmonary edema when inhaling aerosols.
- Specific target organ toxicity following repeated exposure : No data available.
- Aspiration Hazard : No data available

## 12. Ecological Information

- A. Aquatic & Eco-toxicity:
- Fish : No data available.
  - Crustacean : No data available
  - Algae : No data available
- B. Persistence and degradability
- Persistence : log Kow -10.45(Estimate)
  - degradability : No data available.
- C. Bioaccumulative potential
- No data available
- D. Mobility in soil : No data available
- E. ozone layer harmfulness
- Not applicable.
- F. Other adverse effect : No data available.

## 13. Disposal Considerations

- A. Disposal method
- Store and transport wastes as general waste of the workplace.
  - Waste must be disposed of in accordance with federal, state and local environmental control regulations.
  - Dispose of the wrapper as general waste at the workplace
- B. Disposal Considerations
- Consider precautions in Waste Control Act(if specified).

## 14. Transport information

- A. UN Number : No data available.

	Material Safety Data Sheet(MSDS)	Date of establishment	June, 3, 1996.
	Potassium pyro phosphate	Date of revision	Novmber, 30, 2020.
		Page	8/8

- B. UN proper shipping name : N/A  
 C. UN hazardous ranking : N/A  
 D. Un package group : N/A  
 E. Marine pollutant : No data available  
 F. Safety measures you should know about shipping  
 - In case of fire : No data available  
 - in case of leakage : No data available

## 15. Regulatory Information

- Korea- Regulation by occupational safety and health act : No data available  
 Korea- The chemicals control Act : No data available  
 Korea- Persistent organic pollutants control acts : No data available  
 U.S.A management information(OSHA Regulation) : No data available  
 U.S.A management information(CERCLA Regulation) : No data available  
 U.S.A management information(EPCRA 302 Regulation) : No data available  
 U.S.A management information(EPCRA 304 Regulation) : No data available  
 U.S.A management information(EPCRA 313 Regulation) : No data available  
 U.S.A management information(Roterdame Protocol) : No data available  
 U.S.A management information(Stockholme Protocol) : No data available  
 U.S.A management information(Montreal Protocol) : No data available

## 16. Other Information

- A. Data Source : Korean Occupational Safety and Health Act.  
 B. Date of establishment : June, 3, 1996.  
 C. Revision Number and recent revision date : Rev. No.6 November 30, 2020.  
 D. Reference :  
 - Korea Occupational Safety & Health Agency  
 - International Uniform Chemical Information Database(IUCLID)(Appearance, Color, pH)  
 - International Chemical Safety Cards (ICSC)(Melting point/Freezing point:)  
 - Uakron(Initial Boiling point and Boiling point range)  
 - International Chemical Safety Cards (ICSC)(Solubility)  
 - Uakron(Specific Gravity:)  
 E. Others : The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. We shall not be held liable for any damage resulting from handling.