

Triple Super Phosphate

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

1.1 Name of product

Triple Super Phosphate

1.2 Use of the substance/preparation

Fertiliser

1.3 Manufacturer/Distributor

JIANGSU KHONOR CHEMICALS CO.,LIMITED
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1.4 Emergency contact

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2. HAZARDS IDENTIFICATION

2.1 Classification

Classification according to directive EC 1272/2008 classification, labelling and packaging

Physical hazards

GHS05 corrosion

Health hazards

Eye Dam. 1 H318

Environmental hazards

Not Classified

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

Physical hazards

Xi; Irritant

Health hazards

R41: Risk of serious damage to eyes

Environmental hazards

Not Classified

2.2 Label elements

Pictogram



GHS05

Signal word

Danger

Hazard Statements

H318 Causes serious eye damage

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a poison center or doctor/physician.

2.3 Other hazards

Substance not classed as PBT or vPvB.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture

Ingredient	CAS/EINECS	Classification	% w/w
Calcium bis, (dihydrogen orthophosphate)	7758-23-8 231-837-1	Xi R41 Eye Dam. 1, H318	≥65%
Ingredient	CAS/EINECS	Classification	% w/w
Calcium Sulphate, natural (CaSO ₄)	7778-18-9 231-900-3		≥3%
Ingredient	CAS/EINECS	Classification	% w/w
Calcium hydrogen orthophosphate	7757-93-9 231-826-1		≥2%

4. FIRST AID MEASURES

4.1 Description of first aid measures

General information – Do not leave affected persons unattended.

Eye contact – Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If Irritation Persists, seek medical advice.

Skin contact – Wash exposed areas of skin with soap and water. Get medical attention if symptoms are severe or persist.

Ingestion – Wash out mouth with water and drink plenty of water. Seek medical attention if large quantities are ingested.

Inhalation – Remove to fresh air. Get medical attention if symptoms are severe or persist.

4.2 Most important symptoms and effects, both acute and delayed

Eye Contact: Not available

Skin Contact: Not available

Ingestion: Not available

Inhalation: Not available

4.3 Indication of immediate medical attention and special treatment needed

Not available

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Use foam, carbon dioxide, dry powder, sand. The mixture is not classified as flammable. As such extinguishing media appropriate for surrounding materials should be chosen.

5.2 Special hazards arising from substance or mixture

Poisonous gases produced:

- Phosphorus oxides (e.g. P205)
- Sulphur oxides (SO_x)

Danger of toxic fluorine based pyrolysis products.

5.3 Advice for firefighters

Contain spread of extinguishing fluids. In the case of a fire, wear self-contained breathing apparatus in confined spaces. Wear fully protective suit.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions

Avoid raising dust.

6.2 Environmental precautions

Avoid contamination of water courses.

6.3 Methods and material for containment and cleaning up:

Sweep up and shovel product or use other means and place in container for reuse (preferred) or disposal.

7. HANDLING & STORAGE

7.1 Precautions for safe handling

No special handling advice required. Follow general Industrial Hygiene practice. Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed.

7.2 Conditions for safe storage

Keep in a cool, well-ventilated place.

No special restrictions on storage with other products.

Stable under recommended storage conditions.

Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific end use

No data available

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure Limits

DNEL Workers – Inhalation; Long term systemic effects: 3.1 mg/m³
 Workers – Dermal; Long term systemic effects: 17.4 mg/kg/day
 General population – Inhalation; Long term systemic effects: 0.9 mg/m³
 General population – Oral; long term systemic effects: 2.1 mg/kg/day
 General population – Dermal; Long term systemic effects: 10.4 mg/kg/day

PNEC Fresh water: 1.7 mg/l
 Marine water: 0.17 mg/m³
 Intermittent release: 17 mg/l
 STP: 10 mg/l

8.2 Exposure Controls:

Personal protective equipment

Appropriate engineering controls:	All handling should only take place in well-ventilated areas.
Eye/face protection:	Wear eye protection.
Hand protection:	Wear protective gloves.
Other skin and body protection:	Wear appropriate clothing to prevent repeated or prolonged skin contact.
Hygiene measures:	Wash hand thoroughly after handling. Do not eat, drink or smoke when using this product. Keep away from food stuffs beverages and feed.
Respiratory protection:	Use suitable respiratory protective device in case of insufficient ventilation.

9. PHYSICAL & CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance	Grey Brownish, Granular
Odour	Acidic
pH	3.6
Boiling point	N/A
Melting point	N/A
Flash point	N/A
Flammability	The product is not flammable.
Autoflammability	N/A
Explosivity	N/A
Decomposition temperature	>200°C (Thermal decomposition on losing water)
Oxidising properties	N/A
Vapour Pressure	8,4x10-7 Pa (OECD 104, EC A.4)
Bulk density	1,000-1,200 kg/m ³
Solubility	1-100 g/L (Partly soluble.)

9.2 Other information:

No data available

10. STABILITY & REACTIVITY

10.1 Reactivity

Reacts with alkali (yes).

Mixing with urea causes formation of very sticky urea phosphate.

10.2 Stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Toxic fumes may be released if heated above the decomposition point.

10.4 Conditions to avoid

Overheating

10.5 Incompatible materials

Alkalies, Urea

10.6 Hazardous decomposition products

Formation of toxic gases is possible during heating or in case of fire:

- Phosphorus oxides (e.g. P2O5)
- Sulphur oxides (SOx)

Danger of toxic fluorine based pyrolysis products.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity (7783-28-0 diammonium hydrogen orthophosphate)

Notes (oral LD50) >2000 mg/kg (rat) (OECD 425, EPA) Not classified

Notes (dermal LD50) >2000 mg/kg (rat) (OECD 402, EPA) Not classified

Notes (inhalation LC50/4h) >5,0 mg/l (rat) (OECD 403)

Skin corrosion/irritation (7722-76-1 Ammonium dihydrogen orthophosphate)

OECD 404 not irritating (rabbit)

Serious eye damage/irritation (65996-95-4 Superphosphates, concentrated)

OECD 405, EC B.5 irritating effect (rabbit)

Respiratory sensitisation

No specific test data are available

Skin sensitisation (7783-28-0 diammonium hydrogen orthophosphate)

OECD 429, EC B.42 not sensitizing (mouse)

Repeated dose toxicity

Oral-NOAEL 250 mg/kg bw day (rat) (OECD 422(subacute)) should not be classified for general toxicity.

Germ cell mutagenicity

None

(according to OECD 471 and OECD 473 tests with CAS 65996-95-4 TSP and acc to OECD 476 with CAS 7722-76-1 ammonium dihydrogen orthophosphate.)

Carcinogenicity

No specific test data are available

Reproductive toxicity

No classification is necessary

Reproductive toxicity: NOAEL: 750 mg/kg bw/day; rat, oral

Developmental toxicity: NOAEL: 759 mg/kg bw/day; rat, oral (OECD 422)

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic toxicity:

Inorganic phosphates are not considered to be toxic to aquatic species.

7722-76-1 Ammonium dihydrogenorthophosphate	
LC50/96 h (static)	>85,9 mg/L (rainbow trout) (OECD203) freshwater
8011-76-5 Superphosphate(SSP)	
LC50/72 h	1790 mg/L (Daphnia carinata) (Stand meth for the exam of water and wastewater)
65996-95-4 superphosphates, concd	
EC50/72 h (static)	>87.6 mg/L (Selenastrum capricornutum algae) (OECD 201) NOEC >87.6 mg/L

12.2 Persistence and degradability

The substance is inorganic; therefore no biodegradation tests are applicable.

This product dissociates into Ca+2, sulphate and phosphate ions, which cannot be further degraded.

12.3 Bioaccumulative potential

Does not accumulate in organisms.

This substance is highly water soluble and dissociating.

Low potential for bioaccumulation (based on substance properties).

12.4 Mobility in soil

Low potential for adsorption (based on substance properties).

12.5 Results of PBT and vPvB

This product does not contain any substances classified as PBT or vPvB.

12.6 Other adverse data

The product should not get in high quantities into waste water because it may act as a plant nutrient and cause eutrophication.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

This product is used as a fertiliser. However, large spills can kill vegetation. Prevent large quantities from entering waterways. If uncontaminated, sweep up or collect, and reuse as product. If contaminated with other materials, collect in suitable containers.

Can be reused without reprocessing.

Disposal must be made in accordance with local authority requirements.

European waste catalogue

06 00 00 WASTES FROM INORGANIC CHEMICAL PROCESSES

06 09 00 Wastes from the MSFU of phosphorus chemicals and phosphorus chemical processes

06 09 04 Calcium-based reaction wastes other than those mentioned in 06 09 03

Uncleaned packaging:

Packaging may be reused or recycled after cleaning.

Disposal must be made in accordance with local authority requirements.

Recommended cleansing agents: water, if necessary together with cleansing agents.

14. TRANSPORT INFORMATION

14.1 UN-Number

ADR, IMDG, IATA Not applicable

14.2 UN proper shipping name

ADR, IMDG, IATA Not applicable

14.3 Transport hazard class (es)

ADR, IMDG, IATA Not applicable

14.4 Packaging Group

ADR, IMDG, IATA Not applicable

14.5 Environmental hazards

Not applicable

14.6 Special precautions for user

Not applicable

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific to this substance:

Directive 200/60 EC (phosphates)

15.2 National regulations:

Additional classification according to decree on hazardous materials, Annex II: None

15.3 Other regulations, limitations and prohibitive regulations

Substances of very high concern (SVHC) according to REACH, Article 57: None

15.4 Registration status (Chemical inventories listing):

United States (TSCA): listed

Australia (AICS): listed

Korea (ECL): listed

China (IECSC): listed

NTP (National Toxicology Program): Substance is not listed

JARC (International Agency for Research on Cancer): Substance is not listed

15.5 Chemical Safety Assessment

A Chemical Safety assessment has been carried out.

16. OTHER INFORMATION

Relevant phrases

H318 Causes serious eye damage.

R41 Risk of serious damage to eyes.

Disclaimer

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