



# SAFETY DATA SHEET

KOCH FERTILIZANTES DO BRASIL LTDA.

## 1. Identification (company name & product)

**Product name** Triple Superphosphate  
**Synonyms** GTSP, Concentrated Superphosphate, Calcium bis(dihydrogenorthophosphate), 0-46-0  
**MSDS number** KFB\_TSP\_GHS\_EN  
**Manufacturer/Supplier** Koch Fertilizantes do Brasil  
**Address** Rua Joaquim Floriano 1.120  
1 andar  
Cj. 12 Sao Paolo, SP BRASIL  
**E-mail** kochmsds@kochind.com  
**Telephone** +011 55 41 92263400  
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**Emergency telephone number** For Chemical Emergency  
Call CHEMTREC day or night  
USA/Canada - 1.800.424.9300  
Outside USA/Canada  
1.703.527.3887

### Recommended use and Limitations on use

**Recommended use** Fertilizer.  
**SDS number** Not available.

## 2. Hazards identification

### GHS classification

**Physical hazards** Not classified.  
**Health hazards** Skin corrosion/irritation Category 3  
Serious eye damage/eye irritation Category 1  
**Environmental hazards** Not classified.

### Label elements



### Symbols

**Signal word** Danger  
**Hazard statement** Causes serious eye damage. Causes mild skin irritation.

### Precautionary statement

**Prevention** Wear eye/face protection.  
**Response** First wash with water for several minutes. If possible, remove contact lenses. Seek medical care. Immediately call a POISON CENTER or doctor/physician. If there is irritation, seek medical care.  
**Storage** Store away from incompatible materials.  
**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.

## 3. Composition/information on ingredients

**Substance or mixture** Mixture

### Chemical property

Chemical name	CAS Number	Concentration (%)
Superphosphates, concd.	65996-95-4	58 - 95
Calcium sulfate	7778-18-9	1 - 20
Calcium hydrogenorthophosphate	7757-93-9	0.1 - 15

	CAS Number	Concentration (%)
Fluorapatite	N/A	0.1 - 10
orthophosphoric acid	7664-38-2	0.1 - 5

**Composition comments** All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## 4. First aid measures

### First aid measures for different exposure routes

<b>Inhalation</b>	Move to fresh air. Get medical attention if any discomfort continues. In case of persistent throat irritation or coughing seek medical attention and take along these instructions.
<b>Skin contact</b>	Flush skin thoroughly with water. Get medical attention if irritation develops or persists.
<b>Eye contact</b>	Dust in the eyes: Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Hold eyelids apart. Get medical attention immediately. Continue to rinse.
<b>Ingestion</b>	Rinse mouth thoroughly with water and give large amounts of milk or water, if person is conscious. Never give anything by mouth to an unconscious person. Only induce vomiting at the instruction of medical personnel. Get medical attention if any discomfort occurs.

**Most important symptoms and effects** Symptoms include itching, burning, redness, and tearing of eyes.

**Personal protection for first-aid responders** Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire-fighting measures

<b>Extinguishing media</b>	Water. Dry chemical, foam, carbon dioxide.
<b>Extinguishing media to avoid</b>	None known.
<b>Specific hazards during fire fighting</b>	Dust may form explosive mixture with air.
<b>Special fire fighting procedures</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Protection of fire-fighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Specific hazards arising from combustion</b>	This product is not flammable.
<b>Specific methods</b>	Use water spray to cool unopened containers. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

## 6. Accidental release measures

<b>Personal precautions</b>	Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
<b>Environmental precautions</b>	Prevent further leakage or spillage if safe to do so. Do not contaminate water.
<b>Emergency procedures</b>	Collect dust using a vacuum cleaner. If not possible, moisten dust with water before it is collected with shovel, broom or the like. The vacuum cleaner should be explosion-proofed. Avoid dust formation. After removal flush contaminated area thoroughly with water.  Never return spills to original containers for re-use.
<b>Spill cleanup methods</b>	Prevent entry into waterways, sewers, basements or confined areas. If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. If not possible, moisten dust with water before it is collected with shovel, broom or the like. Collect dust using a vacuum cleaner. The vacuum cleaner should be explosion-proofed. After removal flush contaminated area thoroughly with water.  Never return spills to original containers for re-use. Avoid dust formation.

## 7. Handling and storage

### Handling

**Technical measures** Take precautionary measures against static discharges when there is a risk of dust explosion. Use explosion-proof ventilation equipment. To prevent and minimize fire or explosion risk from static accumulation and discharge, effectively bond and/or ground product transfer system.

**Local and general ventilation** Use only with adequate ventilation.

**Safe handling advice** Avoid inhalation of dust and contact with skin and eyes. Use work methods which minimize dust production. Keep the workplace clean. Handle and open container with care. Dust clouds may be explosive under certain conditions. Keep away from sources of ignition - No smoking.

#### Storage

**Suitable storage conditions** Keep in a well-ventilated place. Keep container tightly closed. Keep this material away from food, drink and animal feed.

### 8. Exposure controls/personal protection

#### Exposure limits

##### US. ACGIH Threshold Limit Values

Components	Type	Value
orthophosphoric acid (CAS 7664-38-2)	STEL	3 mg/m3
	TWA	1 mg/m3

**Engineering measures** Ventilate as needed to control airborne dust. Use explosion-proof ventilation equipment. An eye wash bottle must be available at the work site.

#### Personal protective equipment

**Respiratory protection** If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Respirator type: High-efficiency particulate respirator.

**Hand protection** Wear protective gloves. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

**Eye/Face protection** Wear dust-resistant safety goggles where there is danger of eye contact.

**Skin and body protection** Do not get this material in contact with skin. Risk of contact: Wear appropriate chemical resistant clothing. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

**Thermal hazards** Not available.

**Hygiene measures** When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Remove and isolate contaminated clothing and shoes. Handle in accordance with good industrial hygiene and safety practice. Launder contaminated clothing before reuse.

### 9. Physical and chemical properties

#### Appearance

**Physical state** Solid.  
**Form** Powder or granules.  
**Color** Tan to black.

**Odor** Slight.  
**Odor threshold** Not available.  
**pH** 2.5 - 2.8 (10% solution).

**Melting point/freezing point** 287.6 °F (142 °C)

**Boiling point, initial boiling point, and boiling range** Decomposes.

**Flash point** Not applicable

**Auto-ignition temperature** Not available.

#### Upper/lower flammability or explosive limits

**Flammability (solid, gas)** Not available.

**Flammability limit - lower (%)** Not available.

**Flammability limit - upper (%)** Not available.

**Explosive limit - lower (%)** Not available.

**Explosive limit - upper (%)** Not available.

**Vapor pressure** Not available.

**Vapor density** Not available.

**Evaporation rate** Not available.

<b>Relative density</b>	Not available.
<b>Density</b>	1.1 g/cm <sup>3</sup>
<b>Solubility</b>	0.2 kg/l
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Bulk density</b>	1.1 - 1.15 g/cm <sup>3</sup>
<b>Viscosity</b>	Not available.
<b>Molecular weight</b>	252.07 (Pure material).

## 10. Stability and reactivity

<b>Stability</b>	Stable at normal conditions.
<b>Conditions to avoid</b>	Static discharge and dust generation.
<b>Incompatible materials</b>	Water. Strong oxidizing agents.
<b>Hazardous decomposition products</b>	Phosphoric acid. Ammonia. Sulfur oxides. Phosphorus oxides.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.

## 11. Toxicological information

**Acute toxicity** May cause discomfort if swallowed.

<b>Components</b>	<b>Species</b>	<b>Test Results</b>
orthophosphoric acid (CAS 7664-38-2)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	2740 mg/kg
<i>Oral</i>		
LD50	Rat	1530 mg/kg

**Routes of exposure** Inhalation. Eye contact.

**Symptoms** Symptoms include itching, burning, redness, and tearing of eyes.

**Skin corrosion/irritation** May cause irritation through mechanical abrasion.

**Serious eye damage/irritation** Causes serious eye damage.

**Respiratory sensitizer** Not classified.

**Skin sensitizer** Not classified.

**Germ cell mutagenicity** Not classified.

**Carcinogenicity** Not classified.

**Toxic to reproduction** Not classified.

**Specific target organ toxicity - single exposure** Not classified.

**Specific target organ toxicity - repeated exposure** Not classified.

**Aspiration hazard** Not classified.

**Chronic effects** Prolonged inhalation may be harmful.

**Other information** Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.

## 12. Ecological information

**Ecotoxicity** The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

**Persistence and degradability** None known.

**Bioaccumulation** Not available.

**Mobility in soil** The product is water soluble and may spread in water systems.

**Other adverse effects** May release phosphates which will result in algae growth, increased turbidity and depleted oxygen. This may be hazardous to fish or other marine organisms. Release to watercourses may cause effects.

### 13. Disposal considerations

<b>Residual waste</b>	Dispose in accordance with all applicable regulations.
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied.
<b>Local disposal regulations</b>	Do not allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations.

### 14. Transport information

#### International regulations

##### IATA

Not regulated as dangerous goods.

##### IMDG

Not regulated as dangerous goods.

### 15. Regulatory information

**Applicable regulations** This chemical product safety data sheet was prepared in accordance with the Brazilian Standard (ABNT NBR 14725-4: (Safety data sheet for chemicals (SDS))).

#### Montreal Protocol

Not applicable.

#### Rotterdam Convention

Not applicable.

#### Stockholm Convention

Not applicable.

### 16. Other information

**List of abbreviations** Not available.

**References** Not available.

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