

Material Safety Data Sheet Triple Super Phosphate

Section 1 - Product Identification

Synonyms : TSP
Molecular Weight : 252.07 g/mol
Chemical Formula : $\text{Ca}(\text{H}_2\text{PO}_4)_2$
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Recommended use of the chemical and restrictions on use

The product is used in:

- Fertilizer
- Baking Powder

Section 2 – Composition/Information on Ingredients

The product contains greater than 90 percent (%) Single Super Phosphate

Chemical Name	CAS No	Purity, %
Triple Super Phosphate	7758-23-8	min. 90

Section 3 – Hazards Identification

3.1 Classification of the substance according to GHS

Not identified

3.2 Other hazards

Swallowed

This substance is commonly used as a component in food, vitamins and pharmaceutical tablets, and may be safely consumed in moderate amounts. Ingestion of large quantities may cause abdominal cramps, nausea, vomiting, diarrhea.

Eye

Dry material may cause slight irritation to the eyes, skin, nose and throat.

Skin

Dry material may cause slight irritation to the eyes, skin, nose and throat.

Inhaled

Respiratory tract irritation and coughing may develop.

Chronic Health Effects

No information is available

Section 4 – First-Aid Measures

4.1. Description of first aid measures

Skin contact

If skin contact occurs:

Immediately remove all contaminated clothing, including footwear.

Flush skin and hair with running water (and soap if available).

Seek medical attention in event of irritation.

Eye contact

If this product comes in contact with the eyes:

Wash out immediately with fresh running water.

Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally

lifting the upper and lower lids.

Seek medical attention without delay; if pain persists or recurs seek medical attention.

Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

Ingestion

Immediately give a glass of water.

First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Inhalation

If dust is inhaled, remove from contaminated area. Encourage patient to blow nose to ensure clear passage of breathing. If irritation or discomfort persists seek medical attention.

Note to physicians

Treat symptomatically

4.2. Most important symptoms and effects, both acute and delayed

Treat symptomatically

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically

Section 5 – Fire Fighting Measures

5.1. Suitable Extinguishing media

There is no restriction on the type of extinguisher which may be used.

Use extinguishing media suitable for surrounding area.

5.2. Specific hazards arising from the chemical

None known

5.3. Special protective actions for fire-fighters

Alert Fire Brigade and tell them location and nature of hazard.

Wear breathing apparatus plus protective gloves in the event of a fire.

Prevent, by any means available, spillage from entering drains or water courses.

Use fire fighting procedures suitable for surrounding area.

DO NOT approach containers suspected to be hot.

Cool fire exposed containers with water spray from a protected location.

If safe to do so, remove containers from path of fire.

Equipment should be thoroughly decontaminated after use.

5.4 Flash Point

Not applicable

Section 6 – Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

6.2. Environmental precautions

Section 12

6.3. Methods and material for containment and cleaning up

Small Spill

Clean up all spills immediately.

Avoid contact with skin and eyes.

Wear impervious gloves and safety glasses.

Use dry clean up procedures and avoid generating dust.
Vacuum up (consider explosion-proof machines designed to be grounded during storage and use).
Do NOT use air hoses for cleaning
Place spilled material in clean, dry, sealable, labelled container.

Large Spill

Clear area of personnel and move upwind.
Alert Fire Brigade and tell them location and nature of hazard.
Control personal contact with the substance, by using protective equipment and dust respirator.
Prevent spillage from entering drains, sewers or water courses.
Avoid generating dust.
Sweep, shovel up. Recover product wherever possible.
Put residues in labelled plastic bags or other containers for disposal.
If contamination of drains or waterways occurs, advise emergency services.

Section 7 – Handling and Storage

7.1. Precautions for safe Handling

Limit all unnecessary personal contact.
Wear protective clothing when risk of exposure occurs.
Use in a well-ventilated area.
When handling DO NOT eat, drink or smoke.
Always wash hands with soap and water after handling.
Avoid physical damage to containers.
Use good occupational work practice.
Observe manufacturer's storage and handling recommendations contained within this SDS.

7.2. Conditions for safe storage, including any incompatibilities

Multi-ply paper bag with sealed plastic liner or heavy gauge plastic bag.
NOTE: Bags should be stacked, blocked, interlocked, and limited in height so that they are stable and secure against sliding or collapse. Check that all containers are clearly labelled and free from leaks. Packing as recommended by manufacturer.

7.3 Ventilation

Local exhaust or other ventilation that will reduce dust concentrations to less than the recommended Permissible Exposure Limit

Section 8 – Exposure Controls/Personal Protection

8.1. Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

8.2. Appropriate engineering controls

General exhaust is adequate under normal operating conditions

8.3. Individual protection measures, such as personal protective equipment (PPE)

Respiratory protection

Type AX-P Filter of sufficient capacity

Eyes and hands protection

No special equipment for minor exposure i.e. when handling small quantities.

OTHERWISE:

Safety glasses with side shields.

Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience.

Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon

as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]

Section 9 – Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical and chemical properties here represent typical properties of this product. Contact the business area using the Product Information phone number in Section 1 for its exact specification.

Physical Appearance: Grey to Black Solid

Odor: NA

pH: Not Applicable

Specific Gravity: NA

Water Solubility: 90% soluble in water

Melting Point Range: NA

Boiling Point Range: NA

Vapor Pressure: Not Available

Vapor Density: Not Available

Molecular Weight: 236.07

Section 10 – Stability and Reactivity

10.1. Conditions Contribute to Instability

Stable at normal conditions.

10.2 Storage Incompatibility

NA

10.3 Conditions to Avoid

Oxidizing agents. Acids.

Avoid dust formation. High temperatures. Contact with incompatible materials.

Section 11 – Toxicological Information

11.1. Information on toxicological effect

NA

11.1.1. Substances

Acute toxicity⁽²⁾

Dust may irritate the respiratory tract, skin and eyes. High concentration: May cause irritation of nose, throat and mucous membranes. Large quantities: Ingestion may cause dizziness, nausea and vomiting.

Skin corrosion / irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/ irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitization

Shall not be classified as a respiratory or skin sensitizer.

Germcell mutagenicity

NA

Carcinogenicity

NA

Reproductive toxicity

No information available.

STOT-single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

STOT-repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration Hazard

Shall not be classified as presenting an aspiration hazard.

Section 12 – Ecological Information

12.1. Toxicity

Fish (short-term):	48-h LC ₅₀ : 85.9 mg/l (OECD 203)
Fish (long-term):	No data
Daphnia magna (short-term):	48-h EC ₅₀ : 1790 mg/l (no guideline followed, with potassium nitrate)
Daphnia magna (long-term):	No data
Algae:	10-d EC ₅₀ : > 1700 mg/l (seawater, no guideline followed, performed with potassium nitrate)
Inhibition of microbial activity:	NOEC fresh water: 87.6 mg/l (OECD 209)

12.2. Persistence and degradability

NA

12.3. Bioaccumulative potential

Data are not available.

12.4. Mobility in soil

Data are not available.

12.5. Other adverse effects

Data are not available.

Section 13 – Disposal Considerations

13.1. Disposal methods

Recycle wherever possible or consult manufacturer for recycling options. Consult State Land Waste Management Authority for disposal. Bury residue in an authorised landfill. Recycle containers if possible, or dispose of in an authorised landfill.

Section 14 – Transport Information

Not regulated under IATA, IMDG, RID/ADR.

14.1. UN number : NA

14.2. UN proper shipping name : NA

14.3. Transport of hazard classes : NA

14.4. Packing group : NA

14.5. Environmental hazards : NA

14.6. Special precautions for user : N.A

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: N.A.

Section 15 – Regulatory Information

15.1. Safety, health and environmental regulations

Not listed

Section 16 : Additional Information

16.1. Mainly changes made to the previous version of this Material Safety Data Sheet (MSDS):

- This MSDS complies with ISO 11014; the requirements of UN-GHS

Revision No	Revision content
05	<ul style="list-style-type: none"> • This SDS is updated in accordance with the GHS (Rev.6) (2015)-Guidance on the Compilation of Safety data Sheets.

16.2. List of abbreviation and acronyms used in this MSDS

SDS : Safety Data Sheets

Index N° : atomic number of the element most characteristic of the properties of the substance

CAS No : Chemical Abstracts Service number

EC No : EINECS Number : European Inventory of Existing Commercial Substances

Repr. Cat. 2 : Substance presumed human reproductive toxicant

Acute Oral Cat. 5 : Substance which is of relatively low acute oral toxicity.

GHS : Globally Harmonised System of Classification and Labelling

LD₅₀ : Median Lethal Dose

LC₅₀ : Lethal Concentration, 50%

N.A. : Not Applicable

OSHA : Occupational Safety & Health Administration

Cal OSHA : The State of California Division of Occupational Safety and Health (DOSH)

PEL : Permissible Exposure Limits

ACGIH : American Conference of Governmental Industrial Hygienists

TLV : Threshold Limit Value

Japanese MITI : Japanese Ministry of International Trade and Industry

EC₅₀ : Half maximal effective concentration

UN : United Nations

U.S. EPA TSCA Inventory: Inventory of the chemical substances manufactured or processed in the United States according to Toxic Substances Control Act compiled and published under the authority of the Environmental Protection Agency

Canadian DSL: Canadian Domestic Substances List

16.3. List of relevant hazard statements and precautionary statements used in this MSDS

Hazard Statement

H361 d: Suspected of damaging the unborn child

H319: Causes serious eye irritation

H303: May be harmful if swallowed

Precautionary Statements

Prevention

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P281: Use personal protective equipment as required.

P264: Wash eyes thoroughly after handling.

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

Response

P308 + P313: If exposed or concerned: get medical advice/attention.

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.

Storage

P405: Store locked up.

Disposal

P501: Dispose of contents/container to in accordance with local regulations.

16.4. References

16.5. Disclaimer of Liability

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