



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
US OSHA

Revision date 12-Jan-2022

Supersedes Date: 13-Jan-2017

Revision Number 4

1. Identification

Product identifier

Product Name Tetrasodium pyrophosphate

Other means of identification

Product Code(s) BK1274A

Synonyms TSPP / TNPP
Tetrasodium diphosphate

Recommended use of the chemical and restrictions on use

Recommended use Food additive
Formulation additive
Metal surface treatment
Special phosphate
Cosmetic additive
Pharmaceutic preparations additive
Dental care

Restrictions on use Uses other than those recommended.

Details of the supplier of the safety data sheet

Supplier Address

ICL
622 Emerson Road - Suite 500
St. Louis, Missouri 63141, USA
Tel:(314)983-7884
e-mail:msdsinfo@icl-group.com

Emergency telephone number

Emergency Telephone Chemtrec 1-800-424-9300

2. Hazard(s) identification

Classification

Acute toxicity - Oral	Category 4
Serious eye damage/eye irritation	Category 1

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Danger

Hazard statements

Harmful if swallowed
Causes serious eye damage

**Appearance** Powder**Physical state** Solid**Odor** Odorless**Precautionary Statements - Prevention**

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

Wash thoroughly after handling

Precautionary Statements - Response

Immediately call a doctor

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

IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell

Rinse mouth

Other information

No information available.

3. Composition/information on ingredients

Substance**Synonyms**

TSPP / TNPP. Tetrasodium diphosphate.

Chemical name	CAS No	Weight-%	Trade secret
tetrasodium pyrophosphate	7722-88-5	>95%	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First-aid measures

Description of first aid measures**General advice**

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

Inhalation

Remove to fresh air. (Call a physician if symptoms occur).

Eye contact

Get immediate medical advice/attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area.

Skin contact

Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.

Ingestion

Clean mouth with water and drink afterwards plenty of water
 NOTE: Never give an unconscious person anything to drink
 Do not induce vomiting.
 Call a physician

Most important symptoms and effects, both acute and delayed

Symptoms May cause redness and tearing of the eyes. May cause blindness. Prolonged or repeated contact may dry skin and cause irritation. Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically and supportively.

5. Fire-fighting measures

Suitable Extinguishing Media Material is not combustible. Use extinguishing media appropriate to surrounding fire conditions.

Specific hazards arising from the chemical May emit toxic and irritating fumes under fire conditions.

Hazardous combustion products Phosphorus oxides.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Cool containers with water spray. Contain runoff to prevent entry into water or drainage systems.

6. Accidental release measures**Personal precautions, protective equipment and emergency procedures**

Personal precautions Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wear protective gloves/protective clothing and eye/face protection.

Methods and material for containment and cleaning up

Methods for containment Collect mechanically. Avoid generation of dust.

Methods for cleaning up After cleaning, flush away traces with water.

Prevention of secondary hazards Water solutions of this product may be corrosive to metals.

Reference to other sections See section 8 for more information. See section 13 for more information.

7. Handling and storage**Precautions for safe handling**

Advice on safe handling Keep containers tightly closed. Avoid generation of dust. Ensure adequate ventilation.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep out of the reach of children. Store in a dry, cool, well-ventilated area. Hygroscopic. Avoid exposure to moisture.

Packaging materials Unsuitable materials: light- and brass alloys.

8. Exposure controls/personal protection

Control parameters

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
tetrasodium pyrophosphate 7722-88-5	-	(vacated) TWA: 5 mg/m ³	TWA: 5 mg/m ³

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Hand protection Wear suitable gloves
Chloroprene gloves
Butyl rubber
Neoprene gloves
Nitrile rubber
Viton™
Rubber gloves

Skin and body protection Wear suitable protective clothing.

Respiratory protection In case of significant or accidental dust emissions, dust mask should be worn.

General hygiene considerations Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Safety shower and eye bath should be provided. Wear personal protective clothing (see section 8).

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state Solid
Appearance Powder
Color white
Odor Odorless
Odor threshold No information available

Property	Values	Remarks • Method
pH	No data available	10.0-10.6
Melting point / freezing point	No data available	
Boiling point / boiling range	No data available	None known
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	Not flammable
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive	No data available	

limits		
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	No data available	None known
Water solubility	Soluble in water	
Solubility(ies)	No data available	None known
Partition coefficient	No data available	Not applicable (inorganic substance)
Autoignition temperature	No data available	None known
Decomposition temperature		None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known

Other information

Explosive properties	Not explosive
Oxidizing properties	Not oxidising
Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Liquid Density	No information available
Bulk density	~850 kg/m ³

10. Stability and reactivity

Reactivity	Water solutions of this product may be corrosive to metals.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	Strong exothermic reaction with acids. Reacts with light alloys in the presence of moisture to form hydrogen. Contact with water generates heat.
Conditions to avoid	Humidity. Avoid contamination by water. Hygroscopic.
Incompatible materials	Strong acids. light alloys. light metals.
Hazardous decomposition products	Fire can cause release of: Phosphorus oxides.

11. Toxicological information

Information on likely routes of exposure**Product Information**

Inhalation	Inhalation of dust in high concentration may cause irritation of respiratory system.
Eye contact	Corrosive to the eyes and may cause severe damage including blindness.
Skin contact	Contact with dust can cause mechanical irritation or drying of the skin. Prolonged or repeated contact may dry skin and cause irritation.
Ingestion	Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	Redness. Burning. May cause blindness.
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Acute toxicity**Numerical measures of toxicity**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
tetrasodium pyrophosphate 7722-88-5	1624 mg/kg (rat, OECD 425)	>2000 mg/kg (rabbit, EPA Fed. Reg. 43:163, 37336-37402)	> 0.58 mg/L (rat, OECD 403, read-across)

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation Causes serious eye damage.

Respiratory or skin sensitization Based on available data, the classification criteria are not met.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.
The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
tetrasodium pyrophosphate 7722-88-5	-	-	-	-

Reproductive toxicity Based on available data, the classification criteria are not met.

STOT - single exposure Based on available data, the classification criteria are not met.

STOT - repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard Not applicable.

Other adverse effects No information available.

12. Ecological information

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
tetrasodium pyrophosphate 7722-88-5	EC50: >100 mg/L (72h, desmodesmus subspicatus, OECD201, read-across)	LC50: >100 mg/L (96h, rainbow trout, OECD203, read-across)	EC50: >1000 mg/L (3h, activated sludge, OECD209, read-across)	EC50: >100 mg/L (48h, daphnia magna, EPA OTS 797.1300, read-across)

Persistence and degradability Not relevant for inorganic salts.

Bioaccumulation Not relevant for inorganic salts.

Chemical name	Partition coefficient
tetrasodium pyrophosphate 7722-88-5	-

Mobility in soil No information available.

Other adverse effects 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

Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Dispose of in a safe manner in accordance with local/national regulations.

14. Transport information

DOT Not regulated

TDG Not regulated

MEX Not regulated

IATA Not regulated

IMDG Not regulated

15. Regulatory information

International Inventories

GHS hazardous component CAS registry numbers appearing in section 3 may differ from substances appearing in section 15 due to country or regional chemical inventory coverage requirements, however, remain in compliance with the inventory. Products that are used as food additives are exempt from listing in international chemical inventories.

For further details on the regulatory status for this product in a specific country, please send your inquiry to the following email address: msdsinfo@icl-group.com

Chemical name	TSCA Inventory List Active/Inactive
tetrasodium pyrophosphate 7722-88-5 (>95%)	Present (ACTIVE)

TSCA	Listed or exempted
DSL	Listed or exempted
ENCS	Listed or exempted
IECSC	Listed or exempted
KECL	Listed or exempted
PICCS	Listed or exempted
AIIC	Listed or exempted
NZIoC	Listed or exempted
TCSI	Listed or exempted
NCI	Listed or exempted

TECI	Listed or exempted
NSQ	Listed or exempted

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL - Canadian Domestic Substances List

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AIIC - Australian Inventory of Industrial Chemicals

NZIoC - New Zealand Inventory of Chemicals

TCSI - Taiwan Chemical Substance Inventory

NCI - Vietnam National Chemicals Inventory

TECI - Thailand Inventory FDA Existing Chemicals

NSQ - Mexico National Inventory of Chemical Substances

US Federal Regulations

Chemical name	U.S. - TSCA (Toxic Substances Control Act) - Section 5(a)(2) - Chemicals with Significant New Use Rules (SNURs)
tetrasodium pyrophosphate - 7722-88-5	-

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %
tetrasodium pyrophosphate - 7722-88-5	-

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
tetrasodium pyrophosphate 7722-88-5	-	-	-	-

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	Reportable Quantity (RQ)
tetrasodium pyrophosphate 7722-88-5	-	-	

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated under applicable state right-to-know regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
tetrasodium pyrophosphate 7722-88-5	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

NFPA	Health hazards 3	Flammability 0	Instability 0	Special hazards -
HMIS	Health hazards 3	Flammability 0	Physical hazards 0	Personal protection X

Key or legend to abbreviations and acronyms used in the safety data sheet**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 EPA (Environmental Protection Agency)
 Acute Exposure Guideline Level(s) (AEGL(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals
 Food Research Journal
 Hazardous Substance Database
 International Uniform Chemical Information Database (IUCLID)
 National Institute of Technology and Evaluation (NITE)
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
 NIOSH (National Institute for Occupational Safety and Health)
 National Library of Medicine's ChemID Plus (NLM CIP)
 National Library of Medicine's PubMed database (NLM PUBMED)
 National Toxicology Program (NTP)
 New Zealand's Chemical Classification and Information Database (CCID)
 Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
 Organization for Economic Co-operation and Development High Production Volume Chemicals Program
 Organization for Economic Co-operation and Development Screening Information Data Set
 World Health Organization

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12-Jan-2022

Revision Note

The symbol (***) in the margin of this SDS indicates that this line has been revised.

Disclaimer

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End of Safety Data Sheet