



Silver Fern Chemical, Inc.
Safety Data Sheet
Tetrapotassium Pyrophosphate TKPP

Revision Date: 11/06/2023

1. Identification

1.1. Product identifier

Product Identity Tetrapotassium Pyrophosphate TKPP
Alternate Names TKPP

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use Cleaning Ingredient, Formulating agent, Feed additives, Detergent, Metal surface treatment, Fertilizers, Food additive,

1.3. Details of the supplier of the safety data sheet

Company Name Silver Fern Chemical, Inc.
2226 Queen Anne Avenue North
Seattle, WA 98109 USA
Customer Service: 1-866-282-3384 /
info@silverfernchemical.com
Website - www.silverfernchemical.com

Emergency 24 hour Emergency Telephone No. Emergency telephone number
Infotrac: 1-800-535-5053; Outside USA & Canada +1-352-323-3500

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Eye Irrit. 2;H319 Causes serious eye irritation.

2.2. Label elements



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Warning

H319 Causes serious eye irritation.

[Prevention]

P264 Wash thoroughly after handling.

P280 Wear protective gloves, eye protection, and face protection.

[Response]

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+313 If eye irritation persists: Get medical advice or attention.

[Storage]

No GHS storage statements

[Disposal]

No GHS disposal statements

Other information

May be harmful if swallowed

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Diphosphoric acid, tetrapotassium salt CAS Number: 7320-34-5	>=95	Eye Irrit. 2;H319	----



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The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.
*PBT/vPvB - PBT-substance or vPvB-substance.
The full texts of the phrases are shown in Section 16.

Section 4. First aid measures

4.1. Description of first aid measures

General In all cases of doubt, or when symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.

Inhalation Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Eyes Rinse with plenty of clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

Skin Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

Ingestion If swallowed obtain immediate medical attention. Rinse mouth. Never give anything by mouth to an unconscious person. Keep at rest. Do NOT induce vomiting.

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

Overview No specific symptom data available.
Treat symptomatically. Check section 2.2 (GHS Label Elements) for further details.

Eyes Causes serious eye irritation.

Section 5. Fire-fighting measures

5.1. Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO₂, powder, water spray.
Unsuitable extinguishing media: Do not use; water jet.

5.2. Special hazards arising from the substance or mixture



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Hazardous decomposition: Phosphorus oxides.

5.3. Advice for fire-fighters

As with all fires, wear positive pressure, self-contained breathing apparatus, (SCBA) with a full face piece and protective clothing. Cool containers with water spray. Contain runoff to prevent entry into water or drainage systems. Persons without respiratory protection should leave area. Wear SCBA during clean-up immediately after fire. No smoking.

ERG Guide No.

Section 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8). Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

6.3. Methods and material for containment and cleaning up

Sweep up or pick up and transfer to properly labeled containers.

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

Section 7. Handling and storage

7.1. Precautions for safe handling

Handle containers carefully to prevent damage and spillage. Check section 2.2 (GHS Label Elements) for further details. - [Prevention]
Handle in accordance with good industrial hygiene and safety practice. Avoid contact



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with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wear appropriate safety clothing and eye/face protection (see Section 8).

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Hygroscopic. Avoid exposure to moisture.

Incompatible materials: No available information

Check section 2.2 (GHS Label Elements) for further details. - [Storage]

Packaging materials – Unsuitable materials: light- and brass alloys.

7.3. Specific end use(s)

No available information

Section 8. Exposure controls / personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0007320-34-5	Diphosphoric acid, tetrapotassium salt	OSHA	No Established Limit
ACGIH	No Established Limit		
NIOSH	No Established Limit		

8.2. Exposure controls

Respiratory If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators. In case of significant or accidental dust emissions, dust mask should be worn.

Eyes Protective safety glasses recommended

Skin Avoid skin contact. Protective gloves recommended.

Engineering Controls Showers. Eyewash stations. Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.



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Other Work Practices Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

Check section 2.2 (GHS Label Elements) for further details.

Section 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	White Solid Granules
Odor	Odorless
Odor threshold	No available information
pH	solution (1 %) 10.0-10.6
Melting point / freezing point	~ 1100 °C
Initial boiling point and boiling range	No available information
Flash Point	No data available
Evaporation rate (Ether = 1)	No available information
Flammability (solid, gas)	No available information
Upper/lower flammability or explosive limits	Lower Explosive Limit: No available information Upper Explosive Limit: No available information
Vapor pressure (Pa)	No available information
Vapor Density	No available information
Relative Density	No available information
Solubility in Water	Readily Soluble
Partition coefficient n-octanol/water (Log Kow)	No available information
Auto-ignition temperature	No available information
Decomposition temperature	No available information
Viscosity (cSt)	No available information
VOC Content	
Oxidising properties	Not oxidising
Explosive properties	Not explosive
Bulk Density	~1000 kg/m ³
Particle Characteristics	

9.2. Other information

No other relevant information.



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Section 10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

Strong exothermic reaction with acids. Reacts with light alloys in the presence of moisture to form hydrogen.

10.4. Conditions to avoid

Avoid exposure to moisture, high temperatures and contact with incompatible material

10.5. Incompatible materials

No available information

10.6. Hazardous decomposition products

Fire can cause release of: Phosphorus oxides.

Section 11. Toxicological information

Information on likely routes of exposure

Product Information

Inhalation May cause irritation of respiratory tract.

Eye contact Causes serious eye irritation. May cause redness, itching, and pain.

Skin contact Prolonged contact may cause redness and irritation.

Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms May cause redness and tearing of the eyes. Burning sensation.

Acute toxicity

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Diphosphoric acid, tetrapotassium salt - (7320-34-5)	>2000 mg/kg (rat, WoE),	>2000 mg/kg (rabbit, OECD)		>1.1 mg/L (rat, EPA OPP 81-3,	



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Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
	ATE: 2500 mg/kg	403), >7940 mg/kg (rabbit)	No data available.	OECD 403)	No data available.

Carcinogen Data

CAS No.	Ingredient	Source	Value
0007320-34-5	Diphosphoric acid, tetrapotassium salt	OSHA	Regulated Carcinogen: No;
NTP	Known: No; Suspected: No;		
IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;		
ACGIH	No Established Limit		

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	---	Not Applicable
Serious eye damage/irritation	2	Causes serious eye irritation.
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

Section 12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/L	48 hr EC50 crustacea, mg/L	ErC50 algae, mg/L
Diphosphoric acid, tetrapotassium salt - (7320-34-5)			



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Ingredient	96 hr LC50 fish, mg/L	48 hr EC50 crustacea, mg/L	ErC50 algae, mg/L
	LC50: >100 mg/L (96h, rainbow trout, OECD 203, read-across)	EC50: >100 mg/L (48h, daphnia magna, EPA OTS 797.1300)	EC50: >100 mg/L (72h, desmodesmus subspicatus, OECD 201, <u>read-across</u>)

12.2. Persistence and degradability

There is no data available on the preparation itself. Not relevant for inorganic salts.

12.3. Bioaccumulative potential

No available information

12.4. Mobility in soil

No available information

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. 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.

Section 13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

Section 14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	Not Regulated	Not Regulated	Not Regulated
14.2. UN proper shipping name	Not Regulated	Not Regulated	Not Regulated
14.3. Transport hazard class(es)	DOT Hazard Class: Not Applicable Sub Class: Not Applicable	IMDG: Not Applicable Sub Class: Not Applicable	Air Class: Not Applicable Sub Class: Not Applicable
14.4. Packing group	Not Applicable	Not Applicable	Not Applicable



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14.5. Environmental hazards

Marine Pollutant: No;

14.6. Special precautions for user

No available information

Section 15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Toxic Substance Control Act (TSCA) All components of this material are either listed or exempt from listing on the TSCA Inventory.

Chemical name	TSCA Inventory List Active/Inactive
tetrapotassium pyrophosphate 7320-34-5 (>=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** Not Listed

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



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EPCRA 302 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 Label Warning:

This product contains no chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

New Jersey RTK Substances (>1%) :

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Pennsylvania RTK Substances (>1%) :

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

OSHA Process Safety Management Standard Highly Hazardous Chemicals, Toxics and Reactives:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.



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US EPA List of Regulated Substances under the Risk Management Plan (RMP) Program:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

US EPA Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) under the Minimum Risk Exemption:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

U.S. - DEA List II or Essential Chemicals:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

U.S. - DEA - Exempt Chemical Mixtures - List 1 and 2:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

US DHS Chemical Facility Anti-Terrorism Standards (CFATS):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Section 16. Other information

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NFPA
HMIS

Health hazards 2
Health hazards 2

Flammability 1
Flammability 0

Instability 0 Special hazards -
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 *

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



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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

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The information on this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume damage or expense arising out of or in any way responsibility and expressly disclaim liability for loss, connected with handling, storage, use, or disposal of this product. If the product is used as a component in another product, this SDS information may not be applicable.

The full text of the phrases appearing in section 3 is:

H319 Causes serious eye irritation.

End of Document

Approved – TL 11-8-23