



# PRAYPHOS™ TSP 12 FG

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations  
SDS ID: PINC-0090  
Issue date: 4/1/2011 Revision date: 5/3/2024 Supersedes: 11/8/2018 Version: 2.4

### SECTION 1: Identification

#### 1.1. Identification

Product form : Substance  
Trade name : PRAYPHOS™ TSP 12 FG  
Chemical name : Sodium orthophosphate dodecahydrate  
CAS-No. : 10101-89-0  
Product code : PINC-0090  
Formula : Na<sub>3</sub>PO<sub>4</sub> 12H<sub>2</sub>O  
Synonyms : Tribasic sodium phosphate dodecahydrate;trisodium monophosphate dodecahydrate, E339  
Other means of identification : 01-2119489800-32-0001

#### 1.2. Recommended use and restrictions on use

Use of the substance/mixture : Food/feedstuff additives

#### 1.3. Supplier

##### Supplier

PRAYON INC.  
1610 Marvin Griffin Rd.  
Augusta, 30906  
United States of America  
[customerserviceusa@prayon.com](mailto:customerserviceusa@prayon.com)

##### Details of the supplier of the safety data sheet

Prayon S.A.  
144 Rue Joseph Wauters  
P.O. Box 144  
Engis, 4480  
[www.prayon.com](http://www.prayon.com)

#### 1.4. Emergency telephone number

Emergency number : In case of emergency: CHEMTREC +1 703-741-5970 / 1-800-424-9300. IN THE EVENT OF A CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT Call CHEMTREC: +1 703-741-5970 / 1-800-424-9300. Toll free in the continental U.S, Hawaii, Puerto Rico, Canada, Alaska, or U.S. Virgin Islands. For calls originating elsewhere dial 703-527-3887 (collect calls accepted).Nationwide Poison control center: 1-800-222-1222.

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

Skin corrosion/irritation, Category 2	H315	Causes skin irritation.
Serious eye damage/eye irritation, Category 2A	H319	Causes serious eye irritation.
Specific target organ toxicity – Single exposure, Category 3,	H335	May cause respiratory irritation.
Respiratory tract irritation		
Full text of H-statements: see section 16		

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labelling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning

# PRAYPHOS™ TSP 12 FG

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Hazard statements (GHS US)	: H315 - Causes skin irritation. H319 - Causes serious eye irritation. H335 - May cause respiratory irritation.
Precautionary statements (GHS US)	: P261 - Avoid breathing spray, mist, fume, gas, dust, vapours. P280 - Wear protective gloves, protective clothing, eye protection, face protection. P302+P352 - If on skin: Wash with plenty of soap and water. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P332+P313 - If skin irritation occurs: Get medical advice/attention. P337+P313 - If eye irritation persists: Get medical advice/attention.

### 2.3. Other hazards which do not result in classification

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Name	: PRAYPHOS™ TSP 12 FG
CAS-No.	: 10101-89-0

Name	Product identifier	%	GHS US classification
Trisodium phosphate dodecahydrated	CAS-No.: 10101-89-0	99	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335

Full text of hazard classes and H-statements : see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation	: Remove victim to fresh air. Call a physician immediately.
First-aid measures after skin contact	: Immediately rinse with plenty of water. Remove contaminated clothing and shoes. Take medical advice immediately.
First-aid measures after eye contact	: In case of eye contact, immediately rinse with clean water for 10-15 minutes. Seek medical attention immediately.
First-aid measures after ingestion	: Do not induce vomiting. If feeling unwell, immediately seek medical attention. Rinse mouth thoroughly with water.

### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects	: Eye irritation. Skin irritation. Respiratory tract irritation.
------------------	--

### 4.3. Immediate medical attention and special treatment, if necessary

See Heading 4.1.

# PRAYPHOS™ TSP 12 FG

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Carbon dioxide (CO2). Foam. Powders.  
Unsuitable extinguishing media : None.

#### 5.2. Specific hazards arising from the chemical

Fire hazard : On exposure to high temperature, may decompose, releasing toxic gases. Non flammable.

#### 5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Wear self-contained breathing apparatus, rubber boots and thick rubber gloves. Wear suitable protective clothing.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Personal protective equipment (see section (s) :8.2). Dust and/or fine particles, minimize inhalation exposure.

##### 6.1.1. For non-emergency personnel

No additional information available

##### 6.1.2. For emergency responders

No additional information available

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : On land, sweep or shovel into suitable containers. Avoid dust production. Rinse with plenty of water.

#### 6.4. Reference to other sections

See section 8 and 13 for more information.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Do not breathe dust. Avoid contact with skin, eyes and clothing. Always wash your hands immediately after handling this product, and once again before leaving the workplace. Remove contaminated clothing and shoes. Wash clothing before re-using. Packagings, even those that have been emptied, will retain product residue. Always obey safety warnings and handle empty packagings as if they were full.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Remove contaminated clothing and shoes.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container closed when not in use. Store in a dry, cool and well-ventilated place. Store in original container.

# PRAYPHOS™ TSP 12 FG

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Trisodium phosphate dodecahydrated (10101-89-0)

##### USA - ACGIH - Occupational Exposure Limits

ACGIH OEL TWA	respirable dust: 3 mg/m <sup>3</sup> - inhalable dust: 10 mg/m <sup>3</sup>
---------------	---

##### USA - OSHA - Occupational Exposure Limits

OSHA PEL TWA	15 mg/m <sup>3</sup> (inhalable) - 5 mg/m <sup>3</sup> (respirable dust)
--------------	--

#### 8.2. Appropriate engineering controls

Appropriate engineering controls	: Use as far as possible in a closed system. Local exhaust is needed at source of vapours. Monitor the atmosphere at regular intervals. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
Environmental exposure controls	: Do not discharge waste into drains.

#### 8.3. Individual protection measures/Personal protective equipment

##### Hand protection:

Wear chemical protective gloves.

##### Eye protection:

Chemical goggles or face shield with safety glasses.

##### Skin and body protection:

Protective clothing (with elasticated cuffs and closed neck)

##### Respiratory protection:

Use respiratory protection mask according to NIOSH/MSHA. Respiratory protection programs must comply with 29 CFR 1910.134

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Hygroscopic product - Powder.
Colour	: white
Odour	: odourless
Odour threshold	: No data available
pH	: 11.8 - 12.5 @ 1% Solution
Melting point	: 450 °C EU Method A.1
Freezing point	: Not applicable - Solid
Boiling point	: Study scientifically not justified ; Melting point> 300°C
Flash point	: Not applicable (inorganic substance)
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Study scientifically not justified - Product is stable
Vapour pressure	: Study scientifically not justified ; Melting point> 300°C
Relative vapour density at 20°C	: Not applicable - Solid
Particle size	: 180 (130 — 230) molecular sieves - Volume
Relative density	: 1.62 @ 20°C
Density	: 0.85 - 1 g/cm <sup>3</sup>
Molecular mass	: 390 g/mol

# PRAYPHOS™ TSP 12 FG

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Solubility	: Water: 33 g/100g 20°C
Partition coefficient n-octanol/water (Log Pow)	: Technical impossibility to obtain the data - (inorganic substance)
Auto-ignition temperature	: Study scientifically not justified ; Melting point> 400°C
Decomposition temperature	: Not applicable
Viscosity, kinematic	: Study scientifically not justified - Solid
Viscosity, dynamic	: Study scientifically not justified - Solid
Explosive limits	: Lower explosion limit: Not applicable - Not explosive
Explosive properties	: Product is not explosive. The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule.
Oxidising properties	: Non oxidizing. There are no chemical groups associated with oxidizing properties.

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Aqueous solutions will react with aluminium, generating hydrogen gas.

### 10.2. Chemical stability

The product is stable at normal handling and storage conditions.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Heat. Moisture.

### 10.5. Incompatible materials

None.

### 10.6. Hazardous decomposition products

None.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

PRAYPHOS™ TSP 12 FG (10101-89-0)	
LD50 oral rat	> 2000 mg/kg OECD 420
LD50 dermal rat	> 2000 mg/kg OECD 402 - Read-across: Similar substances
LC50 Inhalation - Rat	> 0.83 mg/l OECD 403 - Read-across: Similar substances

Skin corrosion/irritation	: Causes skin irritation. pH: 11.8 - 12.5 @ 1% Solution
Serious eye damage/irritation	: Causes serious eye irritation. pH: 11.8 - 12.5 @ 1% Solution
Respiratory or skin sensitisation	: Not classified

# PRAYPHOS™ TSP 12 FG

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause respiratory irritation.
STOT-repeated exposure	: Not classified

### PRAYPHOS™ TSP 12 FG (10101-89-0)

NOAEL (oral, rat, 90 days)	322.88 mg/kg bodyweight/day Dog, Mastalski K 1972, Read-across: Similar substances
Aspiration hazard	: Not classified
Viscosity, kinematic	: Study scientifically not justified - Solid
Symptoms/effects	: Eye irritation. Skin irritation. Respiratory tract irritation.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - water	: This product does not present any particular risk for the environment.
-----------------	--

### PRAYPHOS™ TSP 12 FG (10101-89-0)

LC50 - Fish [1]	100 mg/l (96) Oncorhynchus Mykiss, OECD 203 , Read-across: Similar substances
EC50 Daphnia 1	100 mg/l (48h -Daphnia magna, OECD 202)
EC50 other aquatic organisms 1	1000 mg/l (3 Hours - ACTIVATED SLUDGE - OECD 209)
ErC50 (algae)	100 mg/l (72h - Desmodesmus subspicatus algae, OECD 201)

### 12.2. Persistence and degradability

### PRAYPHOS™ TSP 12 FG (10101-89-0)

Persistence and degradability	Not relevant. (inorganic substance).
-------------------------------	--------------------------------------

### Trisodium phosphate dodecahydrated

Persistence and degradability	Rapidly degradable
-------------------------------	--------------------

### 12.3. Bioaccumulative potential

### PRAYPHOS™ TSP 12 FG (10101-89-0)

Partition coefficient n-octanol/water (Log Pow)	Technical impossibility to obtain the data - (inorganic substance)
Bioaccumulative potential	Low bioaccumulation potential.

### 12.4. Mobility in soil

### PRAYPHOS™ TSP 12 FG (10101-89-0)

Ecology - soil	No data available.
----------------	--------------------

### 12.5. Other adverse effects

Other adverse effects	: No.
Other information	: Phosphates are plant nutrient and as such may contribute to the growth of phytoplanktons in water.

# PRAYPHOS™ TSP 12 FG

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

Waste treatment methods	: Comply with local regulations for disposal.
Additional information	: Empty packaging can have residues or dusts and are subject to proper waste disposal, as above.
Ecological information	: This material when discarded in pure form is not a hazardous waste as defined by 40 CFR 261, the Resource Conservation and Recovery Act (RCRA). Dry materials may be landfilled or recycled in accordance with local, state, and federal regulations. If materials have become contaminated with other substances, dispose of in accordance with local, state, and federal regulations.

### SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
<b>14.1. UN number</b>			
Not regulated for transport			
<b>14.2. Proper Shipping Name</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.3. Transport hazard class(es)</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.4. Packing group</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.5. Environmental hazards</b>			
Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available			

#### 14.6. Special precautions for user

##### DOT

Not regulated

##### TDG

Not regulated

##### IMDG

Not regulated

##### IATA

Not regulated

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

Not applicable

# PRAYPHOS™ TSP 12 FG

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:

Trisodium phosphate dodecahydrated	CAS-No. 10101-89-0	99%
------------------------------------	--------------------	-----

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

#### Trisodium phosphate dodecahydrated (10101-89-0)

CERCLA RQ	5000 lb
-----------	---------

#### 15.2. International regulations

##### CANADA

No additional information available

##### EU-Regulations

No additional information available

##### National regulations

#### Trisodium phosphate dodecahydrated (10101-89-0)

Listed on the Japanese ENCS (Existing New Chemical Substances) inventory  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the TCSI (Taiwan Chemical Substance Inventory)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on KECL/KECI (Korean Existing Chemicals Inventory)  
Inventory of Existing Chemical Substances in China (IECSC)  
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)  
CERCLA reportable quantities : 5,000lbs  
RTECS number: TC9575000  
Not Listed on SARA Section 302 (Specific toxic chemical listings)  
SARA Title III: Acute  
CAS # 10101-89-0 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed is the CAS #  
for anhydrous form is on the inventory (40CFR720.3(u)(2))  
CAS # 7601-54-9 is listed on the TSCA inventory.

#### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Component	State or local regulations
Trisodium phosphate dodecahydrated(10101-89-0)	U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities



# PRAYPHOS™ TSP 12 FG

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 16: Other information

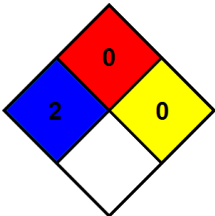
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 5/3/2024

Full text of H-statements	
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Abbreviations and acronyms	
	<p>ADN: European Agreement concerning international carriage of Dangerous goods by Inland waterways ADR: European Agreement concerning international carriage of Dangerous goods by Road AF : Assessment factor BCF : Bioconcentration factor Bw: Body weight CAS: Chemical Abstracts Service CLP : Classification, labelling, packaging CSR: Chemical Safety Report DMEL : Derived maximum effect level DNEL: Derivative No effect Level EC: European Community ELV : Emission limit values EN: European Norm EUH: European Hazard Statement EWC : European Waste catalogue IATA: International Air Transport Association ICAO: International Civil Aviation Organization IMDG: International Maritime Dangerous Goods LC50: Median lethal concentration LD50 : Median lethal dose NOAEL : No-observed-adverse-effect-level NOEC : No observed effect concentration NOEL : No observed effect level OEL : Operator exposure level PBT: Persistent, bioaccumulative, Toxic PEC : Predicted effect level PNEC: Predicted No effect Concentration REACH : Registration, evaluation and autorisation of chemicals RID: Regulations concerning the international carriage of dangerous goods by rail STEL: Short Term Exposure Limit TWA : Time weighted average vPvB: Very persistent, very bioaccumulative</p>

NFPA health hazard	: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.
NFPA fire hazard	: 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.
NFPA reactivity	: 0 - Material that in themselves are normally stable, even under fire conditions.



# PRAYPHOS™ TSP 12 FG

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Indication of changes:			
Section	Changed item	Change	Comments
	Supersedes	Modified	No additional information available
	Revision date	Modified	No additional information available
9	Particle size	Added	No additional information available
9	Lower explosion limit	Added	No additional information available
9	Explosive properties	Added	No additional information available
9	Viscosity, kinematic	Added	No additional information available
9	Viscosity, dynamic	Added	No additional information available
9	Flammability (solid, gas)	Added	No additional information available
9	Vapour pressure	Added	No additional information available
9	Freezing point	Added	No additional information available
9	Relative vapour density at 20°C	Added	No additional information available
9	Molecular mass	Added	No additional information available
9	Decomposition temperature	Added	No additional information available
9	Appearance	Added	No additional information available
9	Partition coefficient n-octanol/water (Log Pow)	Added	No additional information available
9	pH	Modified	No additional information available
9	Relative density	Modified	No additional information available
9	Auto-ignition temperature	Modified	No additional information available
9	Oxidising properties	Modified	No additional information available
9	Melting point	Modified	No additional information available
9	Flash point	Modified	No additional information available
9	Boiling point	Modified	No additional information available
9	Density	Modified	No additional information available
9	Physical state	Modified	No additional information available
11	NOAEL (oral, rat, 90 days)	Added	No additional information available
11	LD50 oral rat	Added	No additional information available
11	LD50 dermal rat	Added	No additional information available
11	LC50 Inhalation - Rat	Added	No additional information available
12.1	ErC50 (algae)	Added	No additional information available
12.1	LC50 - Fish [1]	Added	No additional information available
12.1	EC50 other aquatic organisms 1	Added	No additional information available
12.1	EC50 Daphnia 1	Added	No additional information available
12.2	Persistence and degradability	Added	No additional information available
12.3	Bioaccumulative potential	Added	No additional information available
12.3	Partition coefficient n-octanol/water (Log Pow)	Added	No additional information available

# PRAYPHOS™ TSP 12 FG

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

12.4	Ecology - soil	Added	No additional information available
------	----------------	-------	-------------------------------------

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. **DISCLAIMER OF LIABILITY** The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.