



SAFETY DATA SHEET

Preparation Date: 5/2/2018

Revision Date: 5/2/2018

Revision Number: G1

1. IDENTIFICATION

Product identifier

Product code: H1100
Product Name: HYPOPHOSPHOROUS ACID, 30 PERCENT (W/V) SOLUTION

Other means of identification

Synonyms: No information available
CAS #: Mixture
RTECS # Not available
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: No information available.
Uses advised against No information available

Supplier: Spectrum Chemical Mfg. Corp
14422 South San Pedro St.
Gardena, CA 90248
(310) 516-8000

Order Online At: <https://www.spectrumchemical.com>
Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Martin LaBenz (West Coast)
Contact Person: Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1

Label elements

Danger

Hazard statements

Causes severe skin burns and eye damage

Product code: H1100

Product name:
HYPOPHOSPHOROUS ACID, 30
PERCENT (W/V) SOLUTION

1 / 12

**Hazards not otherwise classified (HNOC)**

Not Applicable

Other hazards

Not available

Precautionary Statements - Prevention

Do not breathe dust/fume/gas/mist/vapors/spray

Wash face, hands and any exposed skin thoroughly after handling

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

Precautionary Statements - Response*Immediately call a POISON CENTER or doctor/physician*

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

Immediately call a POISON CENTER or doctor/physician.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

Wash contaminated clothing before reuse

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Water	7732-18-5	70
Hypophosphorous Acid	6303-21-5	30

4. FIRST AID MEASURES**First aid measures****General Advice:**

National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.

Skin Contact:

Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Continue flushing with plenty of water for at least 15 minutes. Call a physician or Poison Control Centre immediately.

Eye Contact:

Flush eyes with water for 15 minutes. Immediate medical attention is required. Call a physician immediately.

Inhalation:

Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. WARNING! It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or

Product code: H1100**Product name:**
HYPOPHOSPHOROUS ACID, 30
PERCENT (W/V) SOLUTION**2 / 12**

corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Immediate medical attention is required. Call a physician or Poison Control Center immediately.

Most important symptoms and effects, both acute and delayed

Symptoms Severe skin and eye irritation or burns
Skin contact may result in redness, pain, inflammation, itching, scaling
Inflammation of the eye is characterized by redness, watering and itching
Causes digestive (gastrointestinal) tract irritation
May cause gastrointestinal (digestive) tract burns
Can burn mouth, throat, and stomach
Irritating to respiratory system
May cause chemical burns to the respiratory tract

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically.

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: The product is not flammable. If it is involved in a fire, extinguish the fire using an agent suitable for the type of surrounding fire.

Unsuitable Extinguishing Media: No information available.

Specific hazards arising from the chemical

Hazardous Combustion Products: No information available.

Specific hazards: No information available.

Special Protective Actions for Firefighters

Specific Methods: No information available.

Special Protective Equipment for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid contact with skin, eyes and clothing. Use personal protective equipment.

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk.

Methods for cleaning up Neutralize with Sodium carbonate or Sodium bicarbonate. Dilute with water. Absorb spill with inert material (e.g. vermiculite, dry sand or earth), then place in a suitable chemical waste container. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Keep away from incompatible materials.

Safe Handling Advice

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not breathe vapors or spray mist. Do not ingest. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. May corrode metallic surfaces. Do not store in uncoated metallic containers. Store away from incompatible materials. Store in a segregated and approved area.

Incompatible Materials:

Metals
Alkalis
Bases
Oxidizing agents
Sulfuric acid
Hydrochloric acid solution

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	CAS-No.	OSHA	NIOSH	ACGIH	AIHA WEEL
Water	7732-18-5	None	None	None	None
Hypophosphorous Acid	6303-21-5	None	None	None	None

Canada

Product code: H1100

Product name:
HYPOPHOSPHOROUS ACID, 30
PERCENT (W/V) SOLUTION

4 / 12

Components	CAS-No.	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Water	7732-18-5	None	None	None	None
Hypophosphorous Acid	6303-21-5	None	None	None	None

Australia and Mexico

Components	CAS-No.	Australia	Mexico
Water	7732-18-5	None	None
Hypophosphorous Acid	6303-21-5	None	None

Appropriate engineering controls

Engineering measures to reduce exposure:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection: Face-shield

Skin and body protection: Chemical resistant apron
Long sleeved clothing
Gloves
If working with large quantities:
Chemical resistant protective suit
Boots

Respiratory protection: Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

Hygiene measures: Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:

Liquid

Appearance:

No information available.

Color:

Colorless.

Odor:

Odorless.

Taste

No information available.

Formula:

No information available

Molecular/Formula weight:

No information available

Flammability:

No information available

Flashpoint (°C/°F):

No information available.

Flash Point Tested according to:

Not available

Autoignition Temperature (°C/°F):

No information available

Lower Explosion Limit (%):

No information available

Upper Explosion Limit (%):

No information available

Melting point/range(°C/°F):

No information available

Decomposition temperature(°C/°F):

No information available

Boiling point/range(°C/°F):

No information available

Bulk density:

No information available

Density (g/cm3):

No information available

Specific gravity:

No information available

pH:

No information available

Vapor pressure @ 20°C (kPa):

No information available

Product code: H1100

Product name:
HYPOPHOSPHOROUS ACID, 30
PERCENT (W/V) SOLUTION

5 / 12

Evaporation rate:
No information available

Vapor density:
No information available

VOC content (g/L):
No information available

Odor threshold (ppm):
No information available

**Partition coefficient
(n-octanol/water):**
No information available

Viscosity:
No information available

Miscibility:
No information available

Solubility:
Easily soluble in hot water
Soluble in cold water

10. STABILITY AND REACTIVITY

Reactivity
No information available

Chemical stability

Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Incompatible materials.

Incompatible Materials: Metals
Alkalis
Bases
Oxidizing agents
Sulfuric acid
Hydrochloric acid solution

Hazardous decomposition products: Phosphorus oxides.

Other Information
Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Skin. Eyes. Inhalation. Ingestion.

Acute Toxicity

Component Information

Water	
CAS-No.	7732-18-5

LD50/oral/rat = > 90 mL/kg Oral LD50 Rat
LD50/oral/mouse = No information available
LD50/dermal/rabbit = No information available

Product code: H1100

Product name:
HYPOPHOSPHOROUS ACID, 30
PERCENT (W/V) SOLUTION

6 / 12

LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50information = No information available

Hypophosphorous Acid	
CAS-No.	6303-21-5

LD50/oral/rat = No information available
LD50/oral/mouse = No information available
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50information = No information available

Product Information

LD50/oral/rat =
VALUE- Acute Tox Oral = No information available

LD50/oral/mouse =
Value - Acute Tox Oral = No information available

LD50/dermal/rabbit
VALUE-Acute Tox Dermal = No information available

LD50/dermal/rat
VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = No information available
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Corrosive. Contact causes severe skin irritation and possible burns. May affect behavior (somonlence or excitment) if absorbed through skin.

Eye Contact: Corrosive. Liquid or vapor causes severe eye irritation and can cause severe eye burns leading to permanent corneal damage or chemical conjunctivitis.

Inhalation Causes irritation of the respiratory tract with possible burns.

Ingestion Causes digestive (gastrointestinal) tract irritation. May cause digestive (gastrointestinal) tract burns.

Aspiration hazard No information available.

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

Chronic Toxicity No information available.

Sensitization: No information available.

Product code: H1100

Product name:
HYPOPHOSPHOROUS ACID, 30
PERCENT (W/V) SOLUTION

Mutagenic Effects: No information available

Carcinogenic effects: Not considered carcinogenic.

Components	CAS-No.	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Water	7732-18-5	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed
Hypophosphorous Acid	6303-21-5	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity No data is available

Reproductive Effects: No information available

Developmental Effects: No information available

Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Target Organs: Lungs. Respiratory system. Skin. Eyes.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: No data available.

Persistence and degradability: No information available

Bioaccumulative potential: No information available.

Mobility: No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

Components	CAS-No.	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
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Product code: H1100

Product name:
HYPOPHOSPHOROUS ACID, 30
PERCENT (W/V) SOLUTION

8 / 12

Water	7732-18-5	None	None	None	None
Hypophosphorous Acid	6303-21-5	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: UN3264
Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s. (hypophosphorous acid)
Hazard Class: 8
Subsidiary Class: No information available
Packing group: II
Emergency Response Guide Number: 154
Marine Pollutant: No data available
DOT RQ (lbs): No information available
Special Provisions: B2, IB2, T11, TP2, TP27
Symbol(s): [DOT]: (G) - Identifies proper shipping names for which one or more technical names of the hazardous material must be entered in parentheses, in association with the basic description.
Description: UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hypophosphorous Acid), 8, II

TDG (Canada)

UN-No: UN3264
Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s. (hypophosphorous acid)
Hazard Class: 8
Subsidiary Risk: No information available
Packing Group: II
Marine Pollutant: No Information available
Description: UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hypophosphorous Acid), 8, II

ADR

UN-No: UN3264
Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s. (hypophosphorous acid)
Hazard Class: 8
Packing Group: II
Subsidiary Risk: No information available
Special Provisions: 274
Description: UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hypophosphorous Acid), 8, II

IMO / IMDG

UN-No: UN3264
Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s. (hypophosphorous acid)
Hazard Class: 8
Subsidiary Risk: No information available
Packing Group: II
Marine Pollutant: No information available
EMS: F-A
Special Provisions: 274
Description: UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hypophosphorous Acid), 8, II

RID

UN-No: UN3264
Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s. (hypophosphorous acid)

Product code: H1100

Product name:
 HYPOPHOSPHOROUS ACID, 30
 PERCENT (W/V) SOLUTION

9 / 12

Hazard Class: 8
Subsidiary Risk: No information available
Packing Group: II
Special Provisions 274
Description: UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hypophosphorous Acid), 8, II

ICAO

UN-No: UN3264
Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s. (hypophosphorous acid)
Hazard Class: 8
Subsidiary Risk: No information available
Packing Group: II
Description: UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hypophosphorous Acid), 8, II
Special Provisions A3

IATA

UN-No: UN3264
Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s. (hypophosphorous acid)
Hazard Class: 8
Subsidiary Risk: No information available
Packing Group: II
ERG Code: 8L
Special Provisions No information available
Description: UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hypophosphorous Acid), 8, II

15. REGULATORY INFORMATION

International Inventories

Components	CAS-No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Water	7732-18-5	Present(ACTIVE)	Present KE-35400	Present	Not present	Present	Present	Present 231-791-2
Hypophosphorous Acid	6303-21-5	PresentACTIVE	Present KE-28475	Present	Present (1)-420	Present	Present	Present 228-601-5

U.S. Regulations

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	CAS-No.	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Water	7732-18-5	Not Listed	Not Listed	Not Listed	Not Listed
Hypophosphorous Acid	6303-21-5	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	CAS-No.	CERCLA - Hazardous	Section 302 Extremely	Section 302 Extremely	Section 313 - Chemical Category	Section 313 - Reporting

Product code: H1100

Product name:
 HYPOPHOSPHOROUS ACID, 30
 PERCENT (W/V) SOLUTION

10 / 12

		Substances and their Reportable Quantities	Hazardous Substances and TPQs	Hazardous Substances and RQs		de minimis
Water	7732-18-5	None	None	None	None	None
Hypophosphorous Acid	6303-21-5	None	None	None	None	None

U.S. TSCA

Components	CAS-No.	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Water	7732-18-5	Not Applicable	Not Applicable
Hypophosphorous Acid	6303-21-5	Not Applicable	Not Applicable

Canada

WHMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information: The WHMIS 2015 classification of this product has not been validated or reviewed yet.

Component Water 7732-18-5 (70)	WHMIS 2015 Hazard Classification Not a dangerous product according to HPR classification criteria
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Canada Hazardous Products Regulation This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

WHMIS 1988 Hazard Class

E Corrosive material

Components

Water

WHMIS 1988
Uncontrolled product according to WHMIS classification criteria

Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Inventory

Components	CAS-No.	Canada (DSL)	Canada (NDSL)
Water	7732-18-5	Present	Not Listed
Hypophosphorous Acid	6303-21-5	Present	Not Listed

Components	CAS-No.	CEPA Schedule I - Toxic Substances
Water	7732-18-5	Not listed
Hypophosphorous Acid	6303-21-5	Not listed
Components	CAS-No.	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Water	7732-18-5	Not listed
Hypophosphorous Acid	6303-21-5	Not listed

EU Classification

EU GHS - SV - CLP 1272/2008

Components	CAS-No.	EU GHS - SV - CLP (1272/2008)
Water	7732-18-5	
Hypophosphorous Acid	6303-21-5	Not determined

Product code: H1100

Product name:
HYPOPHOSPHOROUS ACID, 30
PERCENT (W/V) SOLUTION

11 / 12

EU - CLP (1272/2008)

R-phrase(s)

Not determined

S -phrase(s)

not determined

Components	CAS-No.	Classification	Concentration Limits:	Safety Phrases
Water	7732-18-5		No information	
Hypophosphorous Acid	6303-21-5		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

C - Corrosive.

16. OTHER INFORMATION

Preparation Date: 5/2/2018
Revision Date: 5/2/2018
Prepared by: Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet