

1. PRODUCT AND COMPANY IDENTIFICATION

Product Code: 31500
Product Name: Chemtron 1500
Trade Name: Chemtron 1500
Company Name: Chemtron Corporation
 3500 Harry S Truman Blvd.
 St. Charles, MO. 63301
Phone Number: 636-940-5445

Web site address: www.chemtroncorporation.com

Emergency Contact: Chemtrec (800)424-9300
 24 Hour 636-940-5445

Product Category: Phosphonate
Intended Use: Intended for Industrial Use
Synonyms: HEPD: 1-Hydroxyethylidene-1,1-diphosphonic acid

2. HAZARDS IDENTIFICATION

Acute Toxicity: Oral, Category 4
Skin Corrosion/Irritation, Category 1A-1C
Serious Eye Damage/Eye Irritation, Category 1
Specific Target Organ Toxicity (single exposure), Category 2



GHS Signal Word: **Danger**

GHS Hazard Phrases: H302 - Harmful if swallowed.
 H314 - Causes severe skin burns and eye damage.
 H318 - Causes serious eye damage.
 H371 - May cause damage to organs (kidney, liver, spleen).

GHS Precaution Phrases: P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
 P264 - Wash hands thoroughly after handling.
 P270 - Do not eat, drink or smoke when using this product.
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.

GHS Response Phrases: P301+312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
 P303+361+353 - IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
 P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P308+311 - If exposed or concerned: Call a POISON CENTER/Doctor
 P310 - Immediately call a POISON CENTER or doctor/physician.
 P321 - Specific treatment see Response/First aid section on this label.
 P330 - Rinse mouth.
 P363 - Wash contaminated clothing before reuse.

GHS Storage and Disposal Phrases: P405 - Store locked up.
 P501 - Dispose of contents/container in accordance with all federal, state and local regulations.

OSHA Regulatory Status:	This material is classified as hazardous under OSHA regulations.
Potential Health Effects (Acute and Chronic):	Chronic: None.
Inhalation:	Material is irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled. Mist may be severely irritating to nose, throat and lungs depending on concentration and duration of exposure.
Skin Contact:	Causes skin irritation. Skin Absorption: May be harmful if absorbed through the skin. Corrosive, causes permanent skin damage (scarring).
Eye Contact:	Causes severe eye irritation. Corrosive. Will cause eye burns and permanent tissue damage.
Ingestion:	Corrosive to mouth, esophagus and stomach. Harmful if swallowed. Low order of Toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Hazardous Components (Chemical Name)	Concentration	RTECS #
2809-21-4	1-Hydroxyethylidene-1,1-diphosphonic acid	58 - 62 %	SZ8562100
13598-36-2	Phosphorous acid, Ortho	<2.0 %	SZ6400000

4. FIRST AID MEASURES

Emergency and First Aid Procedures:	In case of adverse exposure to vapors and/or aerosols, immediately remove the affected victim from exposure and get immediate medical attention. If breathing is difficult, give oxygen. If breathing stops, give artificial respiration.
In Case of Inhalation:	If inhaled, remove to fresh air. If breathing is difficult, give oxygen.
In Case of Skin Contact:	In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.
In Case of Eye Contact:	In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.
In Case of Ingestion:	If swallowed, wash out mouth with water provided person is conscious. Call a physician.
Signs and Symptoms Of Exposure:	The chemical, physical, and toxicological properties of this product have not been thoroughly investigated.
Note to Physician:	Treat symptomatically and supportively.

5. FIRE FIGHTING MEASURES

Flammability Classification:	non-flammable
Flash Pt:	NP
Explosive Limits:	LEL: N.A. UEL: N.A.
Autoignition Pt:	NP
Suitable Extinguishing Media:	Suitable: Water spray.
Unsuitable Extinguishing Media:	Unknown.
Fire Fighting Instructions:	Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Material will not burn.
Flammable Properties and Hazards:	No data available.

6. ACCIDENTAL RELEASE MEASURES

Steps To Be Taken In Case Material Is Released Or Spilled:	<p>PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL. Evacuate area.</p> <p>PROCEDURE(S) OF PERSONAL PRECAUTION(S) Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves. Methods for cleaning up. Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Use proper personal protective equipment as indicated in Section 8. Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container.</p>
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7. HANDLING AND STORAGE

Precautions To Be Taken in Handling:	<p>"Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or properly disposed of. Avoid breathing (dust, vapor, mist, gas). Avoid contact with eyes, skin, and clothing.</p>
Precautions To Be Taken in Storing:	<p>No special storage requirements.</p>

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
2809-21-4	1-Hydroxyethylidene-1,1-diphosphonic acid	PEL: Not Available	TLV: Not Available	Not Available
13598-36-2	Phosphorous acid, Ortho	PEL: Not Available	TLV: Not Available	Not Available

Respiratory Equipment (Specify Type):	<p>Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Respirator protection is not normally required.</p>
Eye Protection:	<p>Splash proof safety goggles.</p>
Protective Gloves:	<p>Hand: Compatible chemical-resistant gloves.</p>
Other Protective Clothing:	<p>Where splashing is possible, full chemically resistant protective clothing (e.g. acid suit) and boots are required.</p>
Engineering Controls (Ventilation etc.):	<p>Safety shower and eye bath. Mechanical exhaust required. There are no special ventilation requirements.</p>
Work/Hygienic/Maintenance Practices:	<p>Wash thoroughly after handling.</p>

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical States:	[] Gas	[X] Liquid	[] Solid
Appearance and Odor:	None to slight odor. Clear colorless to light straw.		
Freezing Point:	NA		
Boiling Point:	NA		
Decomposition Temperature:	NA		
Autoignition Pt:	NP		
Flash Pt:	NP		
Explosive Limits:	LEL: N.A.	UEL: N.A.	
Specific Gravity (Water = 1):	~ 1.444	at 25.0 C (77.0 F)	
Density:	~ 12.0 LB/GA		
Bulk density:	NA		
Vapor Pressure (vs. Air or mm Hg):	NA		
Vapor Density (vs. Air = 1):	NA		
Evaporation Rate:	NA		
Solubility in Water:	Complete		
Saturated Vapor Concentration:	NA		
Viscosity:	NA		
Octanol/Water Partition Coefficient:	Not Available		
pH:	< 2		
Percent Volatile:	~ 38.00 % by weight.		
VOC / Volume:	NP		
Particle Size:	NP		
Heat Value:	NP		
Corrosion Rate:	NA		
Molecular Formula & Weight:	C2H8O7P2	206.028	

10. STABILITY AND REACTIVITY

Reactivity:	Substantial heat is evolved when mixed with alkali.
Stability:	Unstable [] Stable [X]
Conditions To Avoid - Instability:	Contact with common metals produces flammable hydrogen gas.
Incompatibility - Materials To Avoid:	Strong oxidizing agents and strong alkali.
Hazardous Decomposition or Byproducts:	Thermal decomposition may produce toxic fumes of phosphorus oxides and/or phosphine. Carbon dioxide.
Possibility of Hazardous Reactions:	Will occur [] Will not occur [X]
Conditions To Avoid - Hazardous Reactions:	No data available.

11. TOXICOLOGICAL INFORMATION

Toxicological Information: Epidemiology: No data available.
Teratogenicity: No data available.
Reproductive Effects: Mutagenicity: Neurotoxicity: Other Studies:
CAS# 2809-21-4:
Reproductive Effects:, TDLo, Intraperitoneal, Mouse, 40.00 MG/KG, female 7 day(s) after conception.
Result:
Effects on Fertility: Pre-implantation mortality (e.g., reduction in number of implants per female; total number of implants per corpora lutea).
Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).
- Shika Igaku. Odontology., Vol/p/yr: 50,879, 1987

Reproductive Effects:, TDLo, Intraperitoneal, Mouse, 200.0 MG/KG, female 7 day(s) after conception.
Result:
Specific Developmental Abnormalities: Craniofacial (including nose and tongue).
Specific Developmental Abnormalities: Blood and lymphatic system (including spleen and marrow).
- Journal of Osaka Dental University., Vol/p/yr: 20,91, 1986

Reproductive Effects:, TDLo, Subcutaneous, Mouse, 200.0 MG/KG, female 13 day(s) after conception.
Result:
Specific Developmental Abnormalities: Musculoskeletal system.
- Teratology, The International Journal of Abnormal Development, Alan R. Liss, Inc., 41 E. 11th St., New York, NY 10003, Vol/p/yr: 26(1),16A, 1982

Reproductive Effects:, TDLo, Subcutaneous, Mouse, 1400. MG/KG, female 11-17 day(s) after conception.
Result:
Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).
Specific Developmental Abnormalities: Musculoskeletal system.
- Senten Ijo. Congenital Anomalies., For publisher information, see CGANE7, Osaka Japan, Vol/p/yr: 22,47, 1982

Acute toxicity, LD50, Oral, Mouse, 1800. MG/KG.
Result:
Behavioral: Convulsions or effect on seizure threshold.
Gastrointestinal:Hypermotility, diarrhea.
Nutritional and Gross Metabolic:Changes in:Body temperature increase.
- Angewandte Chemie, International Edition in English., VCH Pub., Inc., 303 NW 12th Ave., Deerfield Beach, FL 33441, Vol/p/yr: 14,94, 1975

CAS# 13598-36-2:
Acute toxicity, LD50, Oral, Rat, 1895. MG/KG.
Result:
Behavioral: Convulsions or effect on seizure threshold.
Gastrointestinal:Hypermotility, diarrhea.
Nutritional and Gross Metabolic:Changes in:Body temperature increase.
- Gigiena i Sanitariya, Mezhdunarodnaya Kniga, ul. B. Yakimanka, 39, 113095, Moscow 113095 Russia, Vol/p/yr: 56(4),24, 1991

Acute toxicity, LD50, Oral, Mouse, 1700. MG/KG.
Result:
Behavioral: Tremor.
Behavioral: Muscle contraction or spasticity.
- Toksikologicheskii Vestnik., Vol/p/yr: (6),38, 1995

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
2809-21-4	1-Hydroxyethylidene-1,1-diphosphonic acid	n.a.	n.a.	n.a.	n.a.
13598-36-2	Phosphorous acid, Ortho	n.a.	n.a.	n.a.	n.a.

12. ECOLOGICAL INFORMATION

No data available.

Results of PBT and vPvB assessment:

CAS# 2809-21-4:
LC50, Bluegill (*Lepomis macrochirus*), 868.0 MG/L, 96 H.
LC50, Rainbow Trout (*Oncorhynchus mykiss*), 368.0 MG/L, 96 H.
Effective concentration to {0}% of test organisms., Water Flea (*Daphnia magna*), 527.0 MG/L, 48 H.
CAS# 13598-36-2:
Fathead Minnow (*Pimephales promelas*), 100.0 MG/L, 96 H, Mortality, Water temperature: 82.00 C (179.6 F) C, pH: 8.50; Toxicity of Photographic Processing Chemicals to Fish, Terhaar, C.J., W.S. Ewell, S.P. Dziuba, and D.W. Fassett, 1972

Effective concentration to {0} % of test organisms, Fathead Minnow (*Pimephales promelas*), 10000. MG/L, 4 H, Mortality, Water temperature: 82.00 C (179.6 F) C, pH: 8.50; Toxicity of Photographic Processing Chemicals to Fish, Terhaar, C.J., W.S. Ewell, S.P. Dziuba, and D.W. Fassett, 1972

Persistence and Degradability:

Degrades after acclimatization.

Bioaccumulative Potential:

This material is not expected to bio-accumulate.

Mobility in Soil:

Accidental spillage may lead to penetration in the soil and groundwater. However, there is no evidence that this would cause adverse ecological effects.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method:

Discarded product, as sold, would be considered a RCRA Characteristic Hazardous Waste as it meets the definition /characteristic of corrosivity (designated as D002).

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION.
Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

Waste Disposal Method:

D002

14. TRANSPORT INFORMATION

GHS Classification: Acute Toxicity: Oral, Category 4 - Warning! Harmful if swallowed
Skin Corrosion/Irritation, Category 1A-1C - Danger! Causes severe skin burns and eye damage
Serious Eye Damage/Eye Irritation, Category 1 - Danger! Causes serious eye damage
Specific Target Organ Toxicity (single exposure), Category 2 - Warning! May cause damage to organs (kidney, liver, spleen)

LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: Corrosive liquid, acidic, organic, n.o.s. (1-Hydroxyethylidene-1, 1-diphosphonic acid)
DOT Hazard Class: 8 CORROSIVE
UN/NA Number: UN3265 **Packing Group:** II



LAND TRANSPORT (Canadian TDG):

TDG Shipping Name: No information available.

LAND TRANSPORT (European ADR/RID):

ADR/RID Shipping Name:
UN Number: 3265 **Packing Group:** II
Hazard Class: 8 - CORROSIVE

MARINE TRANSPORT (IMDG/IMO):

IMDG/IMO Shipping Name: Corrosive liquid, acidic, organic, n.o.s. (1-Hydroxyethylidene-1, 1-diphosphonic acid)
UN Number: |N| **Packing Group:** II
Hazard Class: 8 - CORROSIVE
IMDG MFAG Number: |

IMDG EMS Page: |

AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Corrosive liquid, acidic, organic, n.o.s. (1-Hydroxyethylidene-1, 1-diphosphonic acid) Solution.

15. REGULATORY INFORMATION

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
2809-21-4	1-Hydroxyethylidene-1,1-diphosphonic acid	No	No	No
13598-36-2	Phosphorous acid, Ortho	No	No	No

This material meets the EPA Yes No Acute (immediate) Health Hazard
'Hazard Categories' defined Yes No Chronic (delayed) Health Hazard
for SARA Title III Sections Yes No Fire Hazard
311/312 as indicated: Yes No Sudden Release of Pressure Hazard
 Yes No Reactive Hazard

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
2809-21-4	1-Hydroxyethylidene-1,1-diphosphonic acid	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No
13598-36-2	Phosphorous acid, Ortho	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No

CAS # **Hazardous Components (Chemical Name)**
2809-21-4 1-Hydroxyethylidene-1,1-diphosphonic acid

International Regulatory Lists
Canadian DSL: Yes; Canadian NDSL: No; Mexico INSQ: Yes;
Australia ICS: Yes; China IECSC: Yes; Japan ENCS: Yes -
(2)-2936; Korea ECL: Yes - KE-20516; Philippines ICCS: Yes;
Taiwan TCSCA: Yes; REACH: Yes - (R), (P)

13598-36-2 Phosphorous acid, Ortho

Canadian DSL: Yes; Canadian NDSL: No; Mexico INSQ: Yes;
Australia ICS: Yes; China IECSC: Yes; Japan ENCS: Yes -
(1)-421; Korea ECL: Yes - KE-28491; Philippines ICCS: Yes;
Taiwan TCSCA: Yes; REACH: Yes - (R), (P)

Regulatory Information Statement:

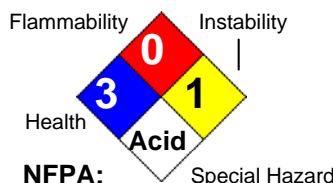
Regulatory information provided in this SDS was prepared for this product and is to be used only for the product in its present form, If this material is used as a component in another material or altered in any way, the information in this SDS may no longer be applicable. This document was generated for the purpose of distributing health, safety and environmental data.

16. OTHER INFORMATION

Revision Date: 03/17/2015
Preparer Name: Chemtron EHS Department 636-757-9236

Hazard Rating System:

HEALTH		3
FLAMMABILITY		0
PHYSICAL		1
PPE		Dn



HMIS:

Additional Information About This Product: SDS Data Field Acronym Legend:

- NA- Not Available
- NP- Not Applicable
- NR- Not Required
- PR- Proprietary
- TS- Trade Secret.

Company Policy or Disclaimer:

MANUFACTURER DISCLAIMER: NOTICE: We believe that the information contained on this Safety Data Sheet is accurate. The suggested procedures are based on experience as of the date of publication. They are not necessarily either all- inclusive or fully adequate in every circumstance. Also, these suggestions should not be confused with or followed in violation of applicable laws, regulation, rules or insurance requirements. **NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE.**