



**ATLANTA WAREHOUSE**

3939 Royal Drive, Suite 139  
Kennesaw, GA 30144

**UTAH WAREHOUSE**

647 West Billinis Road, Unit 1  
Salt Lake City, Utah 84119

## SAFETY DATA SHEET

Product Name : *ChemWorld Metal Xtrem*

Date Issued : September 30, 2015

### SECTION 1 : PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** ChemWorld Metal Xtrem  
**Formula :** Multi-component mixture

**Chemical Synonym / C# :** c473XLTF  
**Chemical Family:** Acidic Detergent

**Supplier :** ChemWorld.com 885 Woodstock Road, Ste 430-111 Roswell, GA 30075  
**Information Telephone :** (800)658-7716 or **Emergency Telephone :** (855) 347-8203

### SECTION 2 : HAZARD IDENTIFICATION

**Form :** Liquid **Color :** Clear, colorless to straw yellow

**Emergency Overview :** Danger! Causes eye and skin burns. May be harmful if swallowed. Read the entire SDS for a more thorough evaluation of the hazards.

**OSHA Hazard Communication Standard :** This product has been evaluated and classified as defined by OSHA Hazard Communication Standard, 29CFR 1910.1200.

**GHS Classification :**

- Corrosive to Metals (Category 1)
- Skin corrosion (Category 1B)
- Serious eye damage / eye irritation (category 1)

**Signal Word :** Danger



**GHS Hazard Pictograms :**

Corrosive

**Hazard Statements :**

- H290 : May be corrosive to metals.
- H314: Causes severe skin burns and eye damage.

**Precautionary Statements :**

- P260: Do not breathe dust / fume / gas / mist / vapors / spray.
- P280: Wear protective gloves / protective clothing / eye protection / face protection.
- P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
- P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P363 - Wash contaminated clothing before reuse.
- P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P310: Immediately call a POISON CENTER or doctor / physician.
- P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P406 : Store in corrosive resistant/ container with a resistant inner liner.
- P405 : Store locked up.
- P501: Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

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## SECTION 3 : COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredient(s)	CAS #	% (w/w)
Phosphoric Acid	7664-38-2	1 - 5
Monosodium Phosphate	7558-80-7	10 - 20
Ammonium Bifluoride	1341-49-7	< 1

Unlisted components are considered non-hazardous as per 29CFR1910.1200g2C. See section 15 for specific state right-to-know information if applicable.

## SECTION 4 : FIRST AID MEASURES

### **First Aid Measures for Phosphoric Acid :**

**Eye or Skin Contact:** Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If easy to do, remove any contact lenses. Get medical attention. Wash clothing and thoroughly clean shoes before reuse.

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Remove material from eyes, skin, and clothing.

**Ingestion:** If swallowed, do not induce vomiting. Offer a glass of water to drink. Get medical attention. Contact a Poison Control Center. Never give anything by mouth to an unconscious person.

**Notes to Physician:** All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

### **First Aid Measures for Ammonium Bifluoride :**

In all cases call a physician immediately. First Aid procedures should be pre-planned for fluoride compound emergencies. If swallowed, administer milk, chewable calcium carbonate tablets or milk of magnesia. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing difficult, give artificial respiration. In case of skin contact wipe off any excess material then immediately flush skin with large amounts of soapy water. Remove contaminated clothing and shoes. Wash clothing before re-use. Apply bandages soaked in magnesium sulfate. In case of eye contact, immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting upper and lower eyelids occasionally.

### **Note to Physician:**

For large exposures, systemic effects (hypocalcemia and hypomagnesia) may occur.

## SECTION 5 : FIRE FIGHTING MEASURES

**Extinguishing Media:** Not combustible. Use extinguishing media suitable for surrounding fire.

**Fire Fighting Procedures:** Use caution when fighting any fire. Adequate respiratory protection is essential.

**Unusual Fire and Explosion Hazards:** May react with metals to liberate hydrogen, a flammable gas.

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## SECTION 6 : ACCIDENTAL RELEASE MEASURES

**Personal precautions :** Use suitable protective equipment (See Section 8 : "Exposure controls / personal protection").

**Steps to be taken in case material is released or spilled:** Contain large spills with dikes and transfer the material to appropriate containers for reclamation or disposal. Absorb remaining material or small spills with an inert material and then place in a chemical waste container.

**Deactivating Chemicals:** Neutralize washings with a base such as soda ash or lime. Flush residual spill area with large amounts of water.

## SECTION 7 : HANDLING AND STORAGE

**Handling:** Do not get in eyes, on skin, or on clothing. Avoid breathing mist or vapor. Do not taste or swallow. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.

**Storage Requirements:** Store in plastic, rubber-lined, or 316 stainless steel tanks designed for phosphoric acid. Store drums away from heat and out of direct sunlight.

## SECTION 8 : EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure Guidelines :**

Hazardous Ingredient	ACGIH TLV (mg/m3) TWA	ACGIH TLV (mg/m3) STEL
Phosphoric Acid	1	3
Monosodium Phosphate	-	-
Ammonium Bifluoride	2.5 (as Fluoride)	-

**Engineering measures :**

**Ventilation / Local Exhaust :** Provide natural or mechanical ventilation to minimize exposure. The use of local mechanical exhaust ventilation is preferred at sources of air contamination such as open process equipment.

**Ventilation / Mechanical Recommendations:** Consult NFPA Standard 91 for design of exhaust systems.

**Personal protective equipment :**

**Respiratory Protection:** Avoid breathing vapor or mist. Use NIOSH/MSHA approved respiratory protection equipment (full facepiece recommended) when airborne exposure limits are exceeded. If used, full facepiece replaces the need for face shield and/or chemical goggles. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by NIOSH/MSHA or the manufacturer. Respiratory protection programs must comply with 29 CFR1910.134.

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## Personal protective equipment continued :

**Skin Protection:** Wear appropriate protective clothing and chemical resistant gloves to prevent skin contact. Consult the glove/clothing manufacturer to determine the appropriate type glove/clothing for a given application. Wear chemical goggles, a face shield, and chemical resistant clothing when splashing is likely. Wash immediately if skin is contaminated. Remove contaminated clothing promptly and launder before reuse. Clean protective equipment before reuse. Provide a safety shower at any location where skin contact can occur. Wash thoroughly after handling.

**Eye Protection:** Where there is potential for eye contact, wear goggles and have eye flushing equipment immediately available.

**Other Protective Equipment:** Vinyl apron (optional).

## SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

**Appearance / Odor:** Clear straw yellow liquid, odor nil.

**Water Solubility:** complete

**pH (1%):** 3.5 - 4.5

**Specific Gravity:** 1.10

**Boiling Point (°F) :** 212+

**Evaporation Rate(water=1):** N/A

**% Volatile:** N/A

**Vapor Density(air=1) :** N/A

**Vapor Pressure(mmHg):** N/A

**Flash Point :** None

**Flash Point Method Used:** N/A

**Flammable Limits:** LEL = N/A UEL = N/A

## SECTION 10 : STABILITY AND REACTIVITY

**Hazardous Decomposition Products:** Oxides of Phosphorus.

**Chemical Stability:** Product is stable under normal conditions of storage and handling.

**Materials to Avoid:** Avoid contact with metals which may liberate flammable hydrogen gas. Avoid contact with materials such as sulfides and sulfites which could release toxic gasses. Be cautious in mixing with strong bases because high heat of reaction can generate steam.

**Hazardous Polymerization:** Will not occur.

## SECTION 11 : TOXICOLOGICAL INFORMATION

**Toxicological Data (Phosphoric Acid):** Due to its acidity, this product is corrosive to the eyes and skin. This material may not produce an immediate burning sensation upon skin contact, delaying the awareness of the worker that contact has occurred.

Data for concentrated Phosphoric Acid (75% strength) are given below :

Oral - rat LD 50 : 1530 mg/kg

Dermal - rabbit LD 50 : 2740 mg/kg

Eye Irritation - rabbit 119 mg/kg Severe irritation, irreversible, burns (corrosive)

Skin Irritation - rabbit (24-hr. exposure) = 595 mg/kg Severe irritation, irreversible, burns (corrosive)

**Route(s) of entry/exposure :** Inhalation, Skin, Eye, Ingestion

**Toxicological Information (as Ammonium Bifluoride):** No LD50/LC50 information found relating to normal routes of occupational exposure.

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## Potential Health Effects (as Phosphoric Acid) :

### Inhalation

**Acute (Immediate)** : Under normal conditions of use, no health effects are expected.

**Chronic (Delayed)** : Repeated or prolonged exposure to corrosive fumes may cause bronchial irritation with chronic cough.

### Skin

**Acute (Immediate)** : Causes severe skin burns and eye damage.

**Chronic (Delayed)** : Repeated or prolonged exposure to corrosive materials will cause dermatitis.

### Eye

**Acute (Immediate)** : Corrosive. Can cause permanent damage to the cornea, blindness.

**Chronic (Delayed)** : Repeated or prolonged exposure to corrosive materials or fumes may cause conjunctivitis.

### Ingestion

**Acute (Immediate)** : Causes corrosion, burns to mouth and esophagus, abdominal pain, chest pain, nausea, vomiting, diarrhea, seizures. Aspiration of the swallowed or vomited product can cause severe pulmonary complications.

**Chronic (Delayed)** : Repeated or prolonged exposure to corrosive materials or fumes may cause gastrointestinal disturbances.

## Potential Health Hazards (as Ammonium Bifluoride):

If inhaled or swallowed, this compound can cause fluoride poisoning. Early symptoms include nausea, vomiting, diarrhea, and weakness. Later effects include central nervous system effects, cardiovascular effects and death.

### Inhalation:

May cause irritation and burns to the respiratory tract, symptoms may include coughing, sore throat, and labored breathing. May be absorbed through inhalation of dust; symptoms may parallel those from ingestion exposure. Irritation and burning effects may not appear immediately.

### Ingestion:

May cause salivation, nausea, vomiting, diarrhea, and abdominal pain, followed by symptoms of weakness, tremors, shallow respiration, carpopedal spasm, convulsions, and coma. May cause brain and kidney damage. Affects heart and circulatory system. Death may be caused by respiratory paralysis. Lethal dose estimated at between 1 teaspoonful and 1 oz.

### Skin Contact:

Causes irritation and burns to the skin. Effects may not appear immediately.

### Eye Contact:

Causes irritation. May be extremely irritating with possible burns to eye tissue and permanent eye damage may result.

### Chronic Exposure (as Ammonium Bifluoride) :

Chronic exposure may cause mottling of teeth and bone damage (osteosclerosis) and fluorosis.

Symptoms of fluorosis include brittle bones, weight loss, anemia, calcified ligaments, general ill health and joint stiffness.

### Aggravation of Pre-existing Conditions:

Populations that appear to be at increased risk from the effects of fluoride are individuals that suffer from diabetes insipidus or some forms of renal impairment.

**Carcinogenicity:** This product does not contain any materials considered to be carcinogenous according to OSHA, NTP, IARC, or ACGIH.

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## SECTION 12 : ECOLOGICAL INFORMATION

### **Exotoxicological Information: (as Phosphoric Acid) =**

96-hr. LC 50 Mosquitofish : 138mg/L : Practically non-toxic.

**Environmental Effects** : No data found.

**Persistence and Degradation** : No specific biodegradation test was located in a search of the available scientific literature. It was reported in the literature that while acidity of this material may be reduced readily in natural waters, the phosphate may persist indefinitely.

### **Exotoxicological Information (as Ammonium Bifluoride) :**

#### **Environmental Fate:**

This material is not expected to significantly bioaccumulate. When released into water, this material may biodegrade to a moderate extent.

#### **Environmental Toxicity:**

This material is not expected to be toxic to aquatic life. The LC50/96-hour values for fish are over 100 mg/l.

## SECTION 13 : DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Recycle, recovery and reuse of materials, where permitted, is encouraged as an alternate to disposal as a waste. Hazardous waste classification under federal regulations (40 CFR Part 261 et seq) is dependent upon whether a material is a RCRA listed hazardous waste or has any of the four RCRA hazardous waste characteristics. Refer to 40 CFR Part 261.33 to determine if a given material to be disposed of is a RCRA listed hazardous waste. RCRA Hazardous Waste Characteristics: There are four characteristics defined in 40 CFR Section 261.21-61.24: Ignitability, Corrosivity, Reactivity, and Toxicity. To determine Ignitability, see Section 9 of this SDS (flash point). For Corrosivity, see Sections 9 and 14 (pH and DOT corrosivity). For Reactivity, see Section 10 (incompatible materials). For Toxicity, see Section 2 (composition). Federal regulations are subject to change. State and local requirements, which may differ from or be more stringent than the federal regulations, may also apply to the classification of the material if it is to be disposed.

**Is the unused product a RCRA hazardous waste (40CFR261.33) if discarded? No**

**If yes, the RCRA ID number is : N/A**

## SECTION 14 : TRANSPORTATION INFORMATION

**Transportation Emergency Telephone Number:** 3E 24 hour number : (855) 347-8203

**UN Number / DOT Proper Shipping Name / DOT Hazard Class /Packing Group / DOT Label & other information:**

**UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.**

**(containing phosphoric acid), 8, PGIII, (CORROSIVE, ERG#154)**

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## SECTION 15 : REGULATORY INFORMATION

### US FEDERAL REGULATIONS :

**TSCA (Toxic Substances Control Act) Status :** TSCA (United States) The intentional ingredients of this product are listed.

**CERCLA RQ - 40 CFR 302.4(a) :** "Reportable Quantities" (RQs) and/or "Threshold Planning Quantities" (TPQs) exist for the following ingredients.

<u>Component</u>	<u>RQ (lbs)</u>
Phosphoric Acid	5000
Ammonium Bifluoride	100

Spills or releases resulting in the loss of any ingredient at or above its RQ requires immediate notification to the National Response Center (800) 424-8802 and to your Local Emergency Planning Committee.

**SARA 302 Components - 40 CFR 355 Appendix A:** none

**SARA 311/312 Classification - 40 CFR 370.2 :**

(as Phosphoric Acid) : Acute Health Hazard

(as Ammonium Bifluoride) : Acute, Chronic

**SARA 313 Components - 40 CFR 372.65:**

<u>Section 313 Component(s)</u>	<u>CAS #</u>	<u>%</u>
Phosphoric Acid	7664-38-2	< 5.0

### INTERNATIONAL REGULATIONS :

**Inventory Status (as Phosphoric Acid):** None known.

**Inventory Status (as Ammonium Bifluoride):** Listed on the following Inventories : EC, Japan, Australia (Hazchem Code 2X, Poison Schedule S6), Korea, Canada (DSL), Philippines.

### STATE REGULATIONS :

**STATE RIGHT-TO-KNOW :** None known. Information on ingredients found in Section 3.

## SECTION 16 : OTHER INFORMATION

**NFPA Rating :** HEALTH: 2 FLAMMABILITY: 0 REACTIVITY: 0  
NFPA hazard degree designation 704: 4 = extreme, 3 = high, 2 = moderate, 1 = slight, 0 = none.

**Revision Date :** 5/21/15

Information and data compiled to compose this SDS is correct to the best of our knowledge as of the printed date, and is offered solely for your consideration, investigation, and verification.