



# Safety Data Sheet

Better Chemistry. Better Business

**MI-TIQUE® 1791**

**Revised:** 1/5/15

## 1 IDENTIFICATION

**Product Code :**2300000

**Recommended use of the chemical and restrictions on use:**Industrial applications

### Hubbard-Hall Inc.

563 South Leonard Street

Waterbury, CT 06708

**Telephone:** 203-756-5521

**Fax number:** 203-756-9017

Emergency Phone Number

**CHEMTREC:** 1 (800) 424-9300

**International:** 1 (703) 527-3887

True Black  
717011  
717013

## 2 HAZARDS IDENTIFICATION



**Signal Word:** DANGER

**Hazard Category:** Skin Corrosion/Irritation Hazard Category 1A  
Eye Damage/Irritation Hazard Category 1  
Corrosive to Metals Hazard Category 1

**Hazard Statements:** Causes severe skin burns and eye damage.  
May be corrosive to metals.

**Prevention:** Do not breath dusts or mists.  
Wash skin thoroughly after handling.  
Wear rubber gloves, goggles and chemical protective clothing.  
Keep only in original container.

**Response:** If swallowed: Rinse mouth. Do NOT induce vomiting.  
If on skin (or hair): 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. Call poison center/doctor if you feel unwell.  
Specific treatment - refer to poison center or doctor for advice.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Absorb spillage to prevent material damage.

**Storage:** Store locked up.  
Store in corrosive resistant high density polyethylene container.

**Disposal:** Dispose of contents/container in accordance with local, regional, national, or international regulations.

### 3 COMPOSITION INFORMATION

Chemical Name	Common Name And Synonyms	CAS No. and other Unique identifiers	Concentration %
Phosphoric Acid		7664-38-2	<10%
Selenium Compound	-	7783-00-8	2-5%
Copper Sulfate	-	7758-99-7	1-3%
Ammonium Molybdate	-	12054-85-2	1-3%

### 4 FIRST AID

**After Inhalation:**

Remove exposed person to fresh air and support breathing as needed.

**After Skin Contact:**

Immediately remove contaminated clothing under a safety shower. Flush all affected areas with large amounts of water for 15 minutes. DO NOT attempt to neutralize with chemical agents. Obtain medical advice.

**After Eye Contact:**

Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Call a physician or poison control center immediately.

**After Ingestion:**

Call a physician or poison control center immediately. Do not induce vomiting. Immediately rinse mouth and drink plenty of water. If vomiting occurs, keep head low so that the stomach content doesn't get into the lungs. Never give anything by mouth to an unconscious person. Do not use mouth-to-mouth method if victim ingested the substance.

### Most Important Symptoms/Effects

**Inhalation:**

Symptoms may include irritation to the nose, throat and upper respiratory tract.

**Eye:**

Adverse symptoms may include the following: Symptoms may include redness, pain, blurred vision, eye burns and permanent eye damage.

**Skin:**

Adverse symptoms may include the following: May cause redness, pain and severe skin burns.

**Ingestion:**

Adverse symptoms may include the following: Symptoms may include severe burns of the mouth, throat and stomach. Ingestion of large quantities may cause gastrointestinal irritation, vomiting and diarrhea.

### 5 FIRE FIGHTING MEASURES

**Suitable and Unsuitable extinguishing media:**

Will not burn or support combustion. Use extinguishing media appropriate for surrounding fire, such as water spray, dry chemical, foam or carbon dioxide.

**Special protective equipment and precautions for firefighter**

Fire fighters should enter area only if they are protected from all contact with the material. Full protective clothing, including self-contained breathing apparatus, coat, pants, gloves, boots and bands around legs, arms, and waist, should be worn. No skin surfaces should be exposed.

### 6 ACCIDENTAL RELEASE MEASURES

**Personal Precautions, Protective Equipment, & Emergency Proc**

Wear chemical goggle, gloves and face shield and protective clothing.

Prevent spilled product from drains, sewers, waterways and soil.

**Methods and Materials for containment & cleaning up:**

Absorb the chemical onto sand, vermiculite, or any other non-combustible absorbent, and collect into containers for later disposal.

**7 HANDLING AND STORAGE**

**Precautions for safe handling:**

Avoid breathing dust, fumes, gas, mist, vapors and sprays.

Wash hands thoroughly after handling.

Do not get in eyes, or on skin, or on clothing.

**Conditions for safe storage, inc any incompatibilities:**

Keep container tightly closed.

Do not allow material to freeze.

Store in corrosive resistant container.

**8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

Name	Std.	TWA-8hrs	STEL - 15 min.
Phosphoric Acid	ACGIH	1 mg/m3	
Selenium Compound	ACGIH	0.2 mg/m3 as SE	-
Copper Sulfate	NIOSH	1 mg/m3	-
Ammonium Molybdate	ACGIH	5 mg/m3 as soluble Molybdenum	-

ACGIH - American Control of Governmental Hygenists  
OSHA - Occupational Safety and Health Administration

**Ventilation:**

Use local exhaust to keep personal exposures below the OSHA Permissible Exposure Limit(s) (PEL) or the ACGIH threshold Limit Values (TLV)Time Weight Average (TWA).

**Respiratory Protection:**

Not required if proper ventilation controls are employed.

**Protective Gloves:**

Acid resistant rubber.

**Eye Protection:**

Wear chemical safety goggles.

**9 PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	Clear blue liquid
<b>Odor:</b>	NA
<b>Odor Threshold:</b>	N/A
<b>PH:</b>	1.5-2
<b>Melting Point/Freezing Point:</b>	N/A
<b>Initial Boiling Point and Boiling Range:</b>	N/A
<b>Flash Point:</b>	N/A
<b>Evaporation Rate:</b>	N/A
<b>Flammability (solid, gas):</b>	N/A
<b>Upper/Lower flammability or explosive limits:</b>	N/A
<b>Vapor Pressure:</b>	N/A
<b>Vapor Density:</b>	N/A
<b>Relative Density:</b>	1.0943

<b>Solubility (ies):</b>	Complete in water
<b>Partition Coefficient; n-octanol/water:</b>	N/A
<b>Auto-ignition Temperature:</b>	N/A
<b>Decomposition Temperature:</b>	N/A
<b>Viscosity:</b>	N/A

## 10 STABILITY AND REACTIVITY

<b>Reactivity:</b>	No specific test data related to reactivity available to this product or its ingredients.
<b>Chemical Stability:</b>	Stable under normal conditions Corrosive in presence of steel
<b>Possibility of Hazardous Reactions:</b>	Reacts violently with strong bases. Contact with metals may release flammable hydrogen gas.
<b>Conditions to Avoid:</b>	Extreme humidity, excess heat.
<b>Incompatible Materials:</b>	Metals, strong oxidizing agents and strong bases. Do not mix with solutions containing bleach or ammonia.
<b>Hazardous Decomposition Products:</b>	Under fire- Oxides of phosphorous at > 300 °C (572 °F)

## 11 TOXICOLOGICAL INFORMATION

<b>Oral Administration:</b>	Phosphoric Acid-LD50-(Rat-female)-1.7 mL/100 g body weight
<b>Oral Administration:</b>	Selenious Acid-LD50(rat)-38.1 mg/kg
<b>Oral Administration:</b>	Copper Sulfate-LD50(rat)->472.5 mg/kg
<b>Immediate effects:</b>	Irritation or burns to skin, eyes and respiratory system
<b>Cancer Hazard:</b>	Not listed by IARC, NTP, OSHA, ACGIH
<b>Routes of Exposure</b>	Eyes, Skin, Inhalation, Ingestion

## 12 ECOLOGICAL INFORMATION

<b>Crustations, Daphnia magna,</b>	Phosphoric Acid-EC50 (48) >100 mg/L
<b>Daphnia Magna,</b>	Copper Sulfate-LC50-0.182 mg/L 24 hrs
<b>Persistence and Degradability:</b>	Not Available
<b>Bioaccumulation potential:</b>	Not known
<b>Soil/Sediment Result:</b>	Phosphoric Acid itself will not absorb into soil, in most cases it will dissociate into PO <sub>4</sub> <sup>3-</sup> and H <sup>+</sup> ions in the soil pore water, and/or react with minerals present in the soil, in particular calcium, iron and aluminum. Except in very specific circumstances (acidic soils, certain mineral soil types, very high dosage of phosphoric acid) phosphoric acid will therefore not penetrate beyond the surface layer of soil and will not reach groundwater table.
<b>Other adverse effects(such as hazardous to the ozone layer):</b>	Not known

## 13 DISPOSAL CONSIDERATION

*Dispose of in accordance with local, state and federal regulations.*

## 14 TRANSPORT INFORMATION

<b>UN Number:</b>	1760
<b>UN Proper Shipping Name:</b>	CORROSIVE LIQUID, N.O.S.(PHOSPHORIC ACID, SELENIOS ACID),
<b>Transport Hazard Class (es):</b>	8
<b>Packing Group:</b>	II
<b>ERG:</b>	154

**15 REGULATORY INFORMATION**

**HMIS: Health: 1 Flammability: 0 Reactivity: 0**

**Cercla**                      Phosphoric Acid-RQ=5000 lbs  
**Cercla**                      Copper Sulfate-RQ is 10 lbs

**16 OTHER INFORMATION**

**Disclaimer:**              The information is based on our knowledge to date but does not constitute an assurance of product properties and does not imply a legal contractual relationship.