

MATERIAL SAFETY DATA SHEET

FIVE STAR AFFILIATES, INC.  
6731 E. 50TH AVENUE  
COMMERCE CITY, CO. 80022

PHONE: 303-287-0186  
MSDS DATE: 12-15-10  
REPLACES: 01-01-08

IDENTIFICATION

PRODUCT NAME: PHOSPHORIC ACID 75%  
COMPOSITION: PHOSPHATE AND MINERAL ACID

-----  
This product requires submission of an annual report on the release of toxic chemicals that appear in 40 CFR 372 (for SARA 313). Components present in this product at a level which could require reporting under the statute are:

HAZARDOUS INGREDIENTS	%	TLV LIMITS IN AIR
Phosphoric Acid (CAS 7664-38-2)	75	TWA 1 mg/m (3) STEL 3 mg/m (3) OSHA/ACGIH
Water (CAS 7732-18-5)	25	N/A

\* Included on FDA GRAS list- permitted as an additive in food.

PHYSICAL DATA

APPEARANCE: Colorless syrupy liquid	ODOR: No foreign odor
SOLUBILITY IN WATER: Complete	SPECIFIC GRAVITY: 1.64
EVAPORATION RATE: 1 (water = 1)	BOILING POINT: 275° F
VAPOR PRESSURE: .03 @ 68° F (100% ACID)	pH OF CONCENTRATE: < 1

FIRE AND EXPLOSION DATA

FLAMMABILITY:	Non-combustible, substance itself does not burn but may decompose to produce corrosive and/or toxic fumes.
EXTINGUISHING MEDIA:	Water, Carbon Dioxide, Foam
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Contact with metals may evolve flammable hydrogen gas. Containers may explode when heated.
NFPA HAZARD RATING:	Health 3; Flammability 0; Reactivity 0

HEALTH HAZARD DATA

- CAUSES SEVERE BURNS TO SKIN AND EYES. HARMFUL OR FATAL IF SWALLOWED.
- Liquid contact with the eyes may produce serious chemical burns.
- Vapor or mist is irritating, liquid may cause severe acid burns. No absorption if skin is not broken.
- Phosphoric acid may not produce an immediate burning sensation upon contact, delaying awareness of the worker that contact has occurred.
- By absorption, slightly hazardous, acute dermal LD(50) (rabbit): > 3160 mg/kg, industry studies slightly toxic.
- Vapor or mist can cause damage to nasal and respiratory passages.
- Do not mix with chlorine containing products as it will cause the release of chlorine gas.
- Severe irritant, TC (Lo) (Human): 100 mg/cu, meter (RTECS 1980).
- Irritation and damage to mucous membranes of the gastrointestinal tract, causing gastric pain, nausea & vomiting.
- Acute oral toxicity LD (50) (rat): 1530 mg/kg 1980.

EMERGENCY & FIRST AID PROCEDURES

EYE CONTACT:	Flush with cool running water for at least 15 minutes. For eye exposure irrigate with saline solution. Get medical attention as soon as possible, especially if redness or irritation occurs.
SKIN CONTACT:	Flush with cool running water. If irritation develops get medical attention.
INGESTION:	If conscious, give several glasses of milk, water, egg whites or gelatin solution. Get medical attention immediately. DO NOT induce vomiting.
INHALATION:	Move victim to fresh air. Call emergency medical care. Apply artificial respiration if victim is not breathing.

**SPECIAL PROTECTION INFORMATION**

**RESPIRATORY PROTECTION:** Atmospheric levels should be maintained below the exposure limits Listed in Hazardous Ingredients by using engineering controls. If not feasible, Use approved full face-piece air-purifying respirator.

**VENTILATION SYSTEM:** Provide general and/or local exhaust ventilation to maintain airborne levels below the exposure limits in Hazardous Ingredients. Refer to "Industrial Ventilation" by ACGIH for a manual of recommended practices.

**SKIN PROTECTION:** If skin or contamination of clothing is likely, protective clothing should be worn.

**EYE PROTECTION:** Chemical goggles are required.

**PROTECTIVE GLOVES:** Wear chemical resistant gloves.

---

**REACTIVITY DATA**

**INCOMPATIBLE MATERIALS:** Reacts with active metals (e.g. mild steel, zinc and aluminum), producing heat and flammable hydrogen gas, also will react vigorously with basic materials (e.g. lime, soda ash, caustic soda and alkali metals). Avoid contact with material such as sulfides and sulfites which could release toxic gas.

**STABILITY:** Stable

**POLYMERIZATION:** Will not occur.

**DECOMPOSITION PRODUCTS:** At temperatures > 300° C. Will decompose and emit toxic phosphorus oxide fumes.

---

**SPILL OR LEAK PROCEDURES**

**SPILL:** See Emergency/ First Aid Procedures and Special Protection Information for hazards and exposure controls. Dike with sand or earth to contain spill. Avoid ignition sources. Absorb with sand or other non-flammable material and transfer to approve DOT drum for recovery or disposal.

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

**GENERAL:** CERCLA/SARA requires notification to the appropriate Federal state and local authorities of releases of hazardous or extremely hazardous quantities equal to or greater than the Reportable Quantities (RQs) in 50 CFR 302.4 and 40 CFR 355. SARA Title 313 requires submissions of annual reports of releases of toxic chemicals that appear in 40 CFR 372. Components present in this product at a level which could require reporting under statute are listed under identification.

---

**TRANSPORTATION**

**DOT HAZARD CLASSIFICATION:** Phosphoric Acid  
8, UN1805, PG III

**US DOT LABEL:** Corrosive, UN1805, Class 8

**LABEL REQUIRED:** Corrosive, Class 8, Label as required by OSHA Hazard Communications Standard, and any applicable state and local regulations.

---

**EMERGENCY TELEPHONE: INFOTRAC 800-535-5053**