



# STOLLER USA, INC.

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**RIPENER**

**MATERIAL SAFETY DATA SHEET (rev. 11/05)**

## SECTION I PRODUCT IDENTIFICATION

### NFPA HAZARD RATINGS

HEALTH HAZARD 1 FIRE HAZARD 0 REACTIVITY 2

### SARA/TITLE III HAZARD CATEGORIES (See Section IX)

Immediate (ACUTE) Health: YES Delayed (Chronic) Health: YES  
Reactive Hazard: YES Sudden Release of Pressure: NO Fire Hazard: NO

Company Name: STOLLER USA, INC.  
Address: 4001 W Sam Houston Pkwy. N, Suite 100  
Houston, Texas 77043 U.S.A.

**Emergency Phone Number: CHEMTREC In the US and Canada call toll-free 1 (800) 424-9300**  
**From other countries, call collect: +1 (703) 527-3887**

Phone Number for Information: 1 (800) 539-5283 or (713) 461-1493

Chemical Family: Inorganic acid-salt solutions

Chemical Name & Synonyms:

Formula: Proprietary

Trade name & Synonyms: RIPENER 3-28-0; RIPENER 3-28-0-4 Mo

## SECTION II COMPOSITION/INGREDIENTS INFORMATION

INGREDIENTS:	CAS #	Approx %	TLV	Haz-Mat
Urea	57-13-6	6.4-6.6	10 mg/m <sup>3</sup>	No
Phosphoric Acid	7664-38-2	50-54	1.0 mg/m <sup>3</sup> vapor/8hr	Yes
Sodium molybdate	10102-40-6	10-12	5 mg/m <sup>3</sup> as Mo	No

## SECTION III PHYSICAL AND CHEMICAL CHARACTERISTICS

<b>BOILING POINT:</b> 284°F (140°C)	<b>VAPOR PRESSURE (mm/Hg):</b> 1.5 @ 20°C
<b>MELTING POINT:</b> N/A	<b>VAPOR DENSITY (air = 1):</b> 3
<b>SPECIFIC GRAVITY:</b> 1.32	<b>REACTIVITY IN WATER:</b> N/E
<b>SOLUBILITY IN WATER:</b> >99%	<b>EVAPORATION RATE:</b> <1
<b>APPEARANCE AND ODOR:</b> White to greenish liquid with no odor.	
<b>OTHER:</b> pH 1.5	

## SECTION IV FIRE AND EXPLOSION DATA

**FLASH POINT:** N/A  
**FLAMMABLE LIMITS:** N/A Product is non-flammable **LEL:** **UEL:**  
**EXTINGUISHER MEDIA:** All means to fight surrounding fire (water, CO<sub>2</sub>, dry chemicals).  
**SPECIAL FIRE FIGHTING PROCEDURES:** wear self-contained breathing apparatus.  
**UNUSUAL FIRE AND EXPLOSION HAZARDS:** toxic fumes may be generated at elevated temperatures.

## SECTION V PHYSICAL HAZARDS (REACTIVITY DATA)

**STABILITY:** Stable: Yes Unstable:  
**CONDITIONS TO AVOID:** Incompatible materials, excess heat, contact with metals.  
**INCOMPATIBILITY, MATERIALS TO AVOID:** Strong bases (alkalies) and chlorides, metals, aldehydes, sulfides.  
**HAZARDOUS DECOMPOSITION PRODUCTS:** Phosphorus oxides, hydrogen and other fumes may be evolved at high temperatures.  
**HAZARDOUS POLYMERIZATION:** **MAY OCCUR:** **WILL NOT OCCUR:** X

**SECTION VI HEALTH HAZARDS****A. EXPOSURE LIMITS**

OSHA Permissible Exposure Limit (PEL): 5 mg/m<sup>3</sup> as Mo      Threshold Limit Value (TLV): 5 mg/m<sup>3</sup> as Mo

**B. EFFECTS OF OVEREXPOSURE****1 ACUTE**

**EYES:** Contact with product may cause severe injury and possibly irreversible damage.

**SKIN:** Harmful if absorbed through broken skin. Large doses may cause liver and kidney damage. May cause burns, irritation, discomfort, and permanent injury unless treated promptly.

**INHALATION:** Prolonged exposure to low concentrations of vapors may cause: sore throat and headache, which are temporary.

**INGESTION:** May cause malaise, nausea, gastrointestinal damage, or even death.

**2 CHRONIC:** Kidney damage may occur from chronic overexposure. Prolonged inhalation may affect lungs

**C. EMERGENCY FIRST AID PROCEDURES:**

**EYES:** Immediately flush with plenty of clean water for at least 15 minutes. Seek medical attention.

**SKIN:** Wash thoroughly with soap and water. Seek medical attention if inflammation occurs.

**INHALATION:** Remove from exposure area if irritation exists from mists or in the event of massive inhalation. Seek medical attention.

**INGESTION:** Give at least two glasses of milk or water but DO NOT induce vomiting. Get medical attention.

**D. ADDITIONAL INFORMATION:** Animal Toxicity Data: Sodium molybdate LD<sub>50</sub> (ipr-rat) 245 mg/Kg  
Phosphoric acid LD<sub>50</sub> (oral rat) 1530 mg/kg      Phosphoric acid LD<sub>50</sub> (skin rabbit) 2740 mg/kg

**SECTION VII SPECIAL PRECAUTIONS & SPILL/LEAK PROCEDURES**

**HANDLING AND STORAGE:** Keep lid tightly closed. Store in dry area, above freezing and below 38°C (100°F), out of direct sunlight. Keep out of reach of children. Keep away from incompatible materials..

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED:** Collect and contain for salvage or disposal. Absorb waste on inert media and dispose of as a solid waste.

**WASTE DISPOSAL METHODS:** Follow all applicable Federal, State and Local laws concerning health and environment.

**SECTION VIII - SPECIAL PROTECTION / CONTROL MEASURES**

**A. RESPIRATORY PROTECTION:** As required by conditions. Use an OSHA or NIOSH approved respirator if required.

**B. VENTILATION:** General ventilation is usually adequate. Local exhaust should be used if needed for safe, comfortable working conditions.

**C. SKIN AND EYE PROTECTION:** Safety glasses should be worn in any type of operation. Protective gloves impervious to this material should be worn, as well as protective clothing.

**D. OTHER SPECIAL CLOTHING/EQUIPMENT:** An eye bath and washing facilities should be available. Wash thoroughly after handling. Do not smoke, eat or chew gum when handling chemicals.

**SECTION IX ENVIRONMENTAL EFFECTS DATA**

Available data on the raw materials does not indicate an undue hazard to the environment under anticipated conditions of storage and use. Any waste due to spillage or leakage should be contained and disposed of as a Fertilizer, not to exceed 3lbs. of actual Boron per acre (see above under Waste Disposal Methods). Due to its nutrient value, may contribute to eutrophication in bodies of water. To aid our customers in complying with regulatory requirements, SARA Title III hazard categories for this product are indicated in Section I. If the word "YES" appears next to any category, this product may be reportable by you under the requirements of 40 CFR Part 370. Please consult those regulations for details.

**SECTION X TRANSPORTATION DATA**

**PROPER SHIPPING NAME:** UN 1805  
PHOSPHORIC ACID Liquid Solution, 8, III

**DOT HAZARD CLASS:** 8      **PLACARD:** CORROSIVE      **RQ:** 5000 lbs (2270 kg)

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