



*Material Safety Data Sheet*  
(in compliance with 29 CFR 1910.1200)

**identity: Merrol® 521**

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**section 1 – Preparation / Product Information**

**manufactured for and supplied by:**

**Harwick Standard Distribution  
Corporation  
60 South Seiberling Street  
P.O. Box 9360  
Akron, OH 44305-0360**

**telephone no: (330) 798-9300**

**date prepared: June 7, 2005**

**preparer: Health, Safety & Environment**

**product use: Plasticizer**

**section 2 – Ingredients / Identity Information**

components chemical identity/cas#	exposure limits			Toxicity LD50/LC50	amount %
	PEL	TLV	OTHER		
Triphenyl phosphate CAS #115-86-6	3mg/m <sup>3</sup>	3mg/m <sup>3</sup>			10-20
Propylated triphenyl phosphite mixture CAS# 68937-41-7		Not Established			80-90

**section 3 – Physical / Chemical Characteristics**

<b>boiling point:</b>	Not Determined	<b>specific gravity:</b>	1.16
<b>freezing point:</b>	Not Determined	<b>pH:</b>	Not Determined
<b>vapor pressure (mm Hg):</b>	Not Determined	<b>odor threshold (ppm):</b>	Not Determined
<b>vapor density (AIR=1):</b>	Not Determined	<b>coef. water/oil dist.:</b>	Not Determined
<b>solubility in water</b>	Not Determined	<b>evaporation rate:</b>	Not Determined
<b>appearance (physical state) and odor:</b>		Liquid; Clear - colorless Odor; Odorless	

**section 4 – Fire and Explosion Hazard Data**

**flash point (method):** 435° F/ 223° C (Pensky-Martens Closed Cup)

**extinguishing media:** Use water fog or spray, foam, CO<sub>2</sub>, or dry chemical.

**special fire fighting procedures:** Wear self-contained breathing apparatus and protective clothing. If possible, move containers from fire area. If not leaking, keep fire exposed containers cool with a water fog

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**health hazards**

**acute:** May cause skin irritation. Inhalation of vapors or mists may cause respiratory tract irritation. Eye contact is not expected to cause irritation. Triphenyl phosphate, and ingredient in this product, can cause cholinesterase inhibition. Ingestion may cause irritation to the gastrointestinal system and diarrhea.

**chronic:** Repeated ingestion may result in symptoms of cholinesterase inhibition. Prolonged and/or repeated skin contact may cause irritation. May cause reproductive toxicity.

**carcinogenicity**

NTP

IARC

OSHA

**Note to physician and signs and symptoms of exposure:** This product is an organophosphorus mixture containing triphenyl phosphate. Triphenyl phosphate has been reported to be a weak cholinesterase inhibitor in humans. Symptoms of cholinesterase inhibition may include: numbness and tingling in the hands and feet, sweating, salivation, headache, nausea, muscle twitching, tremors, uncoordination, blurred vision, tears, abdominal cramps, diarrhea and chest discomfort. In case of cholinesterase inhibition, atropine by injection is antidotal. Pralidoxime chloride (2-PAM; protopam chloride) is also antidotal when administered early and in conjunction with atropine.

**medical conditions generally aggravated by exposure:** Persons with pre-existing neuromuscular disorders may be at an increased risk from exposure to this material.

**hmis rating:** 1

**section 7 – First Aid Measures**

**emergency and first aid procedures**

**inhalation:** Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

**ingestion:** Do not induce vomiting unless directed by medical personnel. If vomiting occurs, keep head below hips to avoid aspiration. Consult a physician.

**skin contact:** Wash with soap and water. If irritation develops, consult a physician.

**eye contact:** Immediately flush with water for 15 minutes. Do not attempt to neutralize the material, and do not apply ointments or oils to the eyes at this time. Consult a physician.

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**section 8 – Precautions for Safe Handling and Use**

**steps to be taken in case material is released or spilled:**

Stop source of spill. Dike area to prevent spill from spreading. Soak up liquid with a suitable absorbent such as clay, sawdust, or kitty litter. Sweep up absorbed material and place in a chemical waste container for disposal. CAUTION! Spill area may be slippery. Cover spill area with slurry of powdered household detergent and water. Use stiff brush to work slurry into cracks and crevices. Let stand 2-3 minutes and flush with water. Do not allow contaminated water to enter waterways or sewers.

**waste disposal method:**

In accordance with federal, state, and local regulations. Refer to Section 10.

**precautions to be taken in handling and storing:**

Handle in well-ventilated area. Avoid inhalation of vapor or mist. Containers should be located in an area where they can be rotated regularly (first in, first out) and visually inspected for dents and bulging on a weekly basis. If bulged drums are found, they should be vented in an open area by removing the two-inch bung very slowly. The two-inch bung should not be removed completely until there is no sound of pressure being released. The bung can then be removed, but this should be done slowly and with care. Store away from foodstuffs or animal feed. Containers should be stored in a cool, dry, well ventilated area away from flammable or oxidizing materials and sources of heat or flame. Emptied container may retain product residues. Follow all warnings and precautions even after container is emptied. Prolonged storage at elevated temperatures under wet alkaline or acidic conditions should be avoided to assure product integrity.

**other precautions:**

Avoid contact with eyes, skin, and clothing.

**section 9 – Control Measures**

**respiratory protection (specify type):**

A NIOSH/MSHA approved respirator above PEL or TLV, and/or an organic vapor/acid gas (OVAG) respirator for vapors or mists.

**ventilation**

**local exhaust:**

Recommended to maintain PEL/TLV and vapors/mists.

**mechanical (general):**

Recommended to maintain PEL/TLV and vapors/mists.

**protective gloves:**

Impervious

**eye protection:**

Chemical goggles or face-shield

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**other protective clothing or equipment:** Coveralls, apron, boots, face-shield as necessary to prevent skin contact. Eyewash station and safety shower should be easily accessible.

**work/hygienic practices:** Wash thoroughly after handling

**Section 10 – Additional Information**

**special shipping information:** Environmentally Hazardous Substance, liquid, n.o.s. (contains triphenyl phosphate, triaryl phosphates, isopropylated ), UN3082, class 9, PG III

**TSCA Inventory Status:**

Chemical components are listed on the TSCA inventory.

**sara title III**

This product contains the following toxic chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 and of 40 CFR 372:

None known

**RCRA status**

The following chemical components are listed under (40 CFR 261):

None known

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