



Safety Data Sheet (SDS)

Revision / Review Date: 12/4/14

1. Chemical Product and Company Identification

Product Name:	P-521
Distributed By:	HB Chemical 1665 Enterprise Parkway Twinsburg Oh 44087 Phone - 330-920-8023
SDS Prepared By (w Suppliers Input):	HB Chemical
Chemical Name / Family:	Propylated Triphenyl Phosphate/ Aryl Phosphate
Common name:	Kronitex 100, 41P, 521
Technical name:	Isopropylated triaryl phosphate
Molecular Formula:	C27H33O4P
Molecular Weight via GPC, Mn:	452.52
Product Use:	Plasticizer
OSHA Status:	Hazardous
CAS No:	68937-41-7, 115-86-6

For emergency health, safety, and environmental information, calls 330-920-8023

For emergency transportation information, in the United States: call CHEMTREC at 800-424-9300

2. Hazard(s) Identification

Warning:



Signs and Symptoms of Exposure: Not available.

Primary Routes of Entry: Not available.

Medical Conditions Generally Aggravated by Exposure: Prolonged exposure can be harmful for certain organs, e.g. liver, kidneys, blood, nervous system and skin.

Warning: Danger of serious damage to health by prolonged exposure if swallowed. Possible risk of impaired fertility. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Eye Contact: May irritate eyes.

Skin Contact: May irritate skin.

Ingestion: Prolonged exposure can be harmful for certain organs, e.g. liver, kidneys, blood, nervous system and skin.

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<u>Inhalation:</u>	Respiratory tract irritation and irritation to the mucous membranes.
<u>NFPA Rating:</u>	Health-1, Fire-1, Reactivity- 0
<u>HMIS Hazard Ratings:</u>	Health- 1, Flammability -1, Reactivity -0
<u>HMIS limitation statement:</u>	The HMIS hazard ratings numbers are meant to give a quick indication of the relative hazards associated with the product. All of the information contained in the SDS should be consulted to assist with the safe handling of this material.

3. Composition / Information on Ingredients

Weight Percent / Typical	Component Identity	CAS Registry Number
85%	Propylated Triphenyl Phosphate	68937-41-7
15%	Triphenyl Phosphate	115-86-6

4. First Aid Measures

<u>Inhalation:</u>	Remove to fresh air; give artificial respiration or oxygen if necessary. Obtain medical attention.
<u>Eyes:</u>	Flush eyes with water for 15 minutes. Call a physician if irritation develops.
<u>Skin:</u>	Wash skin with soap and water. If in contact with hot product, treat as a burn. If symptoms persist, call a physician.
<u>Ingestion:</u>	Do not induce vomiting. Never give anything by mouth to unconscious person. If conscious, make the victim drink 1 or 2 glasses of water. Seek medical attention.

5. Fire-Fighting Measures

<u>Suitable Extinguishing Media:</u>	Use Chemical foam, CO2, Dry Chemical, water fog.
<u>Special Fire Fighting Procedures:</u>	Full eye protection and protective clothing are required for all indoor/outdoor fires and spills. Treat as burning oil. Keep drums as cool as possible to avoid expansion, explosions, and splattering. Burning produces irritant fumes. Exposure to decomposition products may be a hazard to health.
<u>Hazardous Combustion Products:</u>	This product will decompose under extreme temperatures forming oxides of carbon.
<u>Unusual fire and explosion hazards:</u>	Not available.

6. Accidental Release Measures

Steps to be taken in case material is spilled:

Wear appropriate protective equipment and gloves and clothing. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local/national regulations. Clean/scrub affected area with detergent. Transfer to secure containers and dispose of according to local and state regulations. Thought should always be given to collecting the material in such a manner that it could be recycled.

Environmental Disposal Information:

Prevent run-off into sewers or natural waterways. Discharge into the environment must be avoided.

Waste Disposal:

All containers should be effectively labeled to facilitate the appropriate disposal or reclaim.

7. Handling and Storage

Empty Containers:

Empty containers can be rinsed with a suitable solvent/surfactant and steamed to remove residual product and fumes before disposal or reuse in accordance with applicable regulations.

Precautions to be taken in handling:

Perform drum and tote filling in well-ventilated area wearing protective eye shields and clothing. Handle in accordance with good industrial hygiene and safety practice.

Storage:

Store in sealed containers in dry, ambient temperature conditions. Keep container tightly closed.

8. Exposure Controls / Personal Protection

Exposure Controls:

Not available.

Respiratory Protection:

When using this product at elevated temperatures, wear a respirator with a vapor filter.

Ventilation:

Not available.

Hand protection:

Solvent-resistant gloves (butyl-rubber).

Eye Protection:

Safety glasses with side-shields.

Skin and Body Protection:

Chemical resistant apron, impervious clothing, Rubber or plastic boots.

Other Precautions:

Not available.

<u>Decontamination Facilities:</u>	Not available.
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9. Physical and Chemical Properties

<u>Physical Form:</u>	Colorless liquid
<u>Appearance & Odor:</u>	Clear colorless/ odorless
<u>Specific Gravity:</u>	@25°C = 1.16 1.153 - 1.183 at 20 °C
<u>Softening Point, R&B:</u>	Not available.
<u>Solubility in Water:</u>	Not available.
<u>Flash Point, TAG CC F:</u>	222°C (435°F) COC
<u>Percent Volatiles (by weight):</u>	Not available.
<u>Evaporation Rate (Water ~ 1):</u>	< 1 (butyl acetate=1)
<u>Vapor Pressure (mm Hg):</u>	0.01333 hPa at 302 °F (150 °C)
<u>Vapor Density (Air ~ 1):</u>	Not available.
<u>Boiling Point (°F) Initial:</u>	428 - 509 °F (220 - 265 °C) at 5.333 hPa (533.300 mmHg)
<u>Auto ignition Temperature, °C:</u>	Not available.
<u>Flammable Limits, %(V):</u>	Not available.

10. Stability and Reactivity

<u>Stability:</u>	This product is stable under normal conditions.
<u>Incompatibility (Materials to Avoid):</u>	Strong oxidizers and bases.
<u>Conditions to Avoid:</u>	Extreme heat.
<u>Hazardous decomposition products:</u>	Carbon oxides, Oxides of phosphorus
<u>Hazardous Polymerization:</u>	Hazardous polymerization will not occur

11. Toxicological Information

This material is not listed as a carcinogen or potential carcinogen by NTP, IARC, or OSHA.

<u>Acute oral toxicity:</u>	LD50: > 5,000 mg/kg. Species: Rat LD50: > 2,000 mg/kg Species: Rat
<u>Acute inhalation toxicity:</u>	LC50: > 200 mg/l. Species: Rat LC50: > 200 mg/l Exposure time: 1 h Species: Rat LC50: LC (Rat); >5.20 mg/l for 4 hours.

<u>Acute dermal toxicity:</u>	LD50: > 2,000 mg/kg Species: Rat LD50: >2,000 mg/kg – Rabbit LD50: > 10,000 mg/kg Species: Rabbit LD50: > 7,900 mg/kg Species: Rabbit
<u>Acute eye/skin effects:</u>	May cause significant irritation. Also may cause gastrointestinal tract irritation.
<u>Mutagenicity:</u>	Negative AMES test.

12. Ecological Information

May cause adverse impact if material reaches waterways.

<u>Toxicity to fish:</u>	LC50: 1.6 mg/l, Exposure time: 96 h, Species: Oncorhynchus mykiss (rainbow trout) LC50: 10.8 mg/l, Exposure time: 96 h, Species: Pimephales promelas (fathead minnow) NOEC: 0.037 mg/l Exposure time: 30 d Species: Oncorhynchus mykiss (rainbow trout)
<u>Toxicity to daphnia and other aquatic invertebrates:</u>	EC50: 2.44 mg/l, Exposure time: 48 h, Species: Daphnia magna (Water flea)
<u>Toxicity to algae:</u>	NOAEC: 0.31 mg/l, Exposure time: 72 h, Species: Algae NOAEC: 1.3 mg/l, Exposure time: 96 h, Species: Algae NOEC: 0.25 - 2.5 mg/l Exposure time: 72 h Species: Green algae (Scenedesmus subspicatus) Growth inhibition Method: OECD Test Guideline 201.
<u>Biodegradability:</u>	Not readily biodegradable.

13. Disposal Considerations

Reclaim or Dispose of material in accordance with all applicable local, state, and federal regulations. Empty containers can be rinsed with a suitable solvent/surfactant and steamed to remove residual product and fumes before disposal or reuse in accordance with applicable regulations.

14. Transport Information

<u>D.O.T. Shipping Name:</u>	Environmentally Hazardous Substance, Liquid N.O.S. (Contains Triphenyl Phosphate, Triaryl Phosphates, isopropylated). Class: 9, PG III, ERG Code 171.
<u>Air - ICAO (international Civil Aviation Organization):</u>	Environmentally hazardous substances.
<u>IATA:</u>	Environmentally hazardous substance, liquid, n.o.s. (Phenol, isopropylated phosphate (3:1) [Triphenyl phosphate > 5%]) Class : 9 Packing group : III Labels : 9 Environmentally hazardous : yes UN number : 3082.

<u>Sea - IMDG (International Maritime Dangerous Goods):</u>	Environmentally hazardous substance, liquid, n.o.s. (Phenol, isopropylated phosphate (3:1) [Triphenyl phosphate > 5%]) Class : 9, Packing group : III, UN number : 3082, EmS Number 1 : F-A, EmS Number 2 : S-F, Marine pollutant : yes, Environmentally hazardous : yes .
<u>US Customs harmonized tariff code:</u>	2919.00.50.10
<u>Primary Label:</u>	Class 9 Subsidiary Risk Label : Marine Pollutant
<u>Environmental Hazardous Substance:</u>	This product contains Triphenyl phosphate and isopropylated triaryl phosphates which are marine pollutants per 49 CFR, 172.101, Appendix.

15. Regulatory Information

All components of this material are on the TSCA Inventory.

All components of this material are on the Canadian DSL.

<u>SARA 311/312 Hazards:</u>	Acute Health Hazard, Chronic Health Hazard
<u>New Jersey RTK Label Information:</u>	Propylated Triphenyl Phosphate, CAS No. 68937-41-7, Triphenyl Phosphate CAS No. 115-86-6
<u>Pennsylvania RTK Label Information:</u>	Propylated Triphenyl Phosphate, CAS No. 68937-41-7, Triphenyl Phosphate CAS No. 115-86-6
<u>Massachusetts RTK Components:</u>	Propylated Triphenyl Phosphate, CAS No. 68937-41-7, Triphenyl Phosphate CAS No. 115-86-6
<u>California Prop. 65 Components:</u>	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.
<u>Canada WHMIS Hazard Symbol and Class:</u>	Class D, Division 2, Subdivision B: Toxic Material. May cause eye and skin irritation. This product is WHMIS controlled.
<u>Canada ingredient disclosure list:</u>	Does not contain any ingredients on the IDL.
<u>California Prop. 65 Components :</u>	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. Other Information

The above information has been compiled from what we believe to be credible sources. To our knowledge the information is accurate and reliable, however, it is not guaranteed. Any recommendations issued by HB Chemical personnel or literature is derived from experience and by no means should be taken as fact or construed as a recommendation to violate of any law, regulation or patent. It is the users responsibility to determine the suitability of any HB supplied material in their application. The individual conditions of each customer are well outside of our control and we cannot be held liable for its functionality and use. Please contact our office should you need specific information

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beyond what is supplied above. As with all Chemical usage safety precautions beyond the stated are highly recommended.