

**Product name: JACAAB PHOSPHOLAN PS-220**

---

---

## **1. PRODUCT AND COMPANY IDENTIFICATION**

---

**Product name:** JACAAB-PHOSPHOLAN PS-220

**Chemical name:** Alkyl ether phosphate

**Repacker:** JACAAB LLC  
4155 Manchester Avenue  
St. Louis, MO 63110, USA

**Emergency telephone number:** JACAAB LLC 314-652-5400  
CHEMTREC (24 hours) 800-424-9300

**For MSDS, Product Safety, or regulatory inquiries, call:** Customer Service: 800-906-9977

---

## **2. COMPOSITION / INFORMATION ON INGREDIENTS**

---

| <b>COMPONENT</b>                         | <b>CAS#</b> | <b>CONCENTRATION</b> |
|--|-------------|----------------------|
| Alcohols, C10-14, ethoxylated, phosphate | 68585-36-4  | 98.0 %               |
| Phosphoric acid                          | 7664-38-2   | 2.0 %                |
| Dioxane                                  | 123-91-1    | < 0.1 %              |

---

---

## **3. HAZARDS IDENTIFICATION**

---

### **APPEARANCE**

**Physical state** Liquid  
**Color** Yellow  
**Odor** Mild

**Product name: JACAAB PHOSPHOLAN PS-220**

---

## **EMERGENCY OVERVIEW**

MAY BE HARMFUL IF SWALLOWED.

SEE SECTION 7 OF THE MSDS FOR INFORMATION ON TRACE 1,4-DIOXANE CONTENT.

## **POTENTIAL HEALTH EFFECTS**

### **Swallowing**

#### **Acute effects**

May be harmful if swallowed.

### **Skin absorption**

#### **Acute effects**

Harmful effects are not expected from short periods of contact.

### **Inhalation**

#### **Acute effects**

Short-term harmful health effects are not expected from vapor generated at ambient temperature.

### **Skin contact**

#### **Acute effects**

Prolonged contact may cause irritation.

### **Eye contact**

#### **Acute effects**

May cause irritation.

## **POTENTIAL ENVIRONMENTAL EFFECTS**

This product is expected to be moderately toxic to aquatic organisms.

---

## **4. FIRST AID MEASURES**

---

### **Swallowing**

Do not induce vomiting. Obtain medical attention immediately.

### **Skin**

Wash skin with soap and water.

### **Inhalation**

Remove to fresh air. Give artificial respiration if not breathing. Obtain medical attention.

### **Eye contact**

Immediately flush eyes with water and continue washing for at least 15 minutes.

Product name: JACAAB PHOSPHOLAN PS-220

---

## 5. FIRE-FIGHTING MEASURES

---

**Flash point:** > 94 °C

**Special protective equipment for firefighters**

Use self-contained breathing apparatus when fighting fires in enclosed areas.

**Extinguishing media**

Suitable: Extinguish with:

- water fog
- dry chemical
- CO<sub>2</sub>
- alcohol resistant foam
- water spray

Unsuitable: None.

---

## 6. ACCIDENTAL RELEASE MEASURES

---

**Personal precautions**

Wear suitable protective equipment.

**Environmental precautions**

Avoid runoff to sewers or waterways. May be harmful to aquatic life. Product is soluble in water.

**Methods for cleaning up**

Absorb on inert material such as sand, earth, vermiculite.  
Contain or minimize dispersion and collect if possible.  
If not possible disperse residue to reduce aquatic harm.  
Report per regulatory requirements.

---

## 7. HANDLING AND STORAGE

---

### HANDLING

**Handling precautions**

Do not get in eyes, on skin, on clothing. Keep drums tightly closed to prevent contamination. Wear recommended personal protection equipment. Never use pressure to empty drums.

**Other precautions**

This product contains trace amounts of 1,4-dioxane, a condition which creates the potential for human exposure. If this product is handled according to the recommendations in this MSDS, the presence of these trace amounts is not expected to result in any short term or long term hazard.

**Product name: JACAAB PHOSPHOLAN PS-220**

---

**STORAGE****Storage requirements**

Store and use with adequate ventilation. Store at ambient temperature.

---

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

---

**PERSONAL PROTECTION****Respiratory protection**

If personnel exposure exceeds the exposure limits, select appropriate protective equipment in accordance with NIOSH recommendations.

**Hand protection / protective gloves**

Resistant gloves

**Eye protection**

Safety glasses.

**Industrial hygiene measures**

Remove contaminated clothing and clean it.

**ENGINEERING CONTROLS****Ventilation**

General (mechanical) room ventilation is expected to be satisfactory for normal handling.

**EXPOSURE LIMITS**

| <u>Component</u> | <u>Type</u> | <u>Value</u>          | <u>Remark</u> |
|------------------|-------------|-----------------------|---------------|
| Phosphoric acid  | TWA, OSHA   | 1.0 mg/m <sup>3</sup> |               |
|                  | STEL, OSHA  | 3.0 mg/m <sup>3</sup> |               |
|                  | TWA, ACGIH  | 1.0 mg/m <sup>3</sup> |               |
|                  | STEL, ACGIH | 3.0 mg/m <sup>3</sup> |               |

---

**9. PHYSICAL AND CHEMICAL PROPERTIES**

---

**APPEARANCE****Physical state**

Liquid

**Product name: JACAAB PHOSPHOLAN PS-220**

---

**Color** Yellow  
**Odor** Mild

### **OTHER PROPERTIES**

**Boiling point** Decomposes  
**Melting point** Not determined  
**pH** 1.5 - 2.5  
Concentration:  
30 g/l  
**Density** 1.02 g/cm<sup>3</sup> at 20 °C  
**Vapor pressure** Negligible  
**Vapor density (air=1)** Non Volatile  
**Solubility in water** Soluble  
**Flash point** > 94 °C  
Method: Pensky-Martens closed cup ASTM D 93  
**Percent volatiles** 0 % (m)

---

## **10. STABILITY AND REACTIVITY**

---

**Stability:** Stable.

**Stability - Conditions to avoid**  
Stable under normal conditions.

**Incompatible materials**  
Strong oxidizing agents.

**Hazardous combustion products**  
Carbon monoxide.  
Carbon dioxide.  
Oxides of phosphorous.

**Hazardous polymerization:** Will not occur.

---

## **11. TOXICOLOGICAL INFORMATION**

---

**CARCINOGENICITY**



# MATERIAL SAFETY DATA SHEET

Revision: 1.0

06/07/2002

Page: 8 of 8

**Product name: JACAAB PHOSPHOLAN PS-220**

---

|          |   |
|----------|---|
| 2 (HMIS) | Moderate hazard   |
| 3 (HMIS) | Serious hazard  |
| 4 (HMIS) | Severe hazard   |
| X (HMIS) | Personal protection rating to be supplied by user depending on use conditions |



# MATERIAL SAFETY DATA SHEET

Revision: 1.0

06/07/2002

Page: 7 of 8

**Product name: PHOSPHOLAN PS-220**

**Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release of quantities of hazardous substances equal to or greater than the reportable quantities (RQ's) in 40CFR302.4.**

Components present in this product at a level which could require reporting under the statute are:

| Chemical name   |  | CAS#      | Max weight % |
|-----------------|--|-----------|--------------|
| Phosphoric acid | RQ 5000 pounds<br>for phosphoric<br>acid | 7664-38-2 | 2.00         |

**Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires emergency planning based on Threshold Planning Quantities (TPQ's) and release reporting based on Reportable Quantities (RQ's) in 40CFR355 (used for SARA 302 and 304).**

Components present in this product at a level which could require reporting under the statute are:

None.

**Pennsylvania Right-To-Know Hazardous Substance List--Hazardous Substances and Special Hazardous Substances on the list must be identified when present in products.**

Components present in this product at a level which could require reporting under the statute are:

| Chemical name   | CAS#      | Max weight % |
|-----------------|-----------|--------------|
| Phosphoric acid | 7664-38-2 |              |

**New Jersey Worker and Community Right-To-Know Act (Labeling Requirements)**

| Chemical name                            | CAS#       | New Jersey TS Number |
|--|------------|----------------------|
| Phosphoric acid                          | 7664-38-2  |                      |
| Alcohols, C10-14, ethoxylated, phosphate | 68585-36-4 |                      |

**EPA Hazard Categories (SARA 311, 312):** None

## CHEMICAL INVENTORY

United States: The ingredients of this product are on the TSCA inventory.

---

## 16. OTHER INFORMATION

---

### RECOMMENDED USES AND RESTRICTIONS

Please consult the product and/or application information bulletins for this product.

### HMIS RATING

|           |                 |               |        |
|-----------|-----------------|---------------|--------|
| Health: 1 | Flammability: 1 | Reactivity: 0 | PPI: - |
|-----------|-----------------|---------------|--------|

### LEGEND

|          |                                   |
|----------|-----------------------------------|
| STP      | Standard temperature and pressure |
| W/W      | Weight/Weight                     |
| 0 (HMIS) | Minimal hazard                    |
| 1 (HMIS) | Slight hazard                     |



# MATERIAL SAFETY DATA SHEET

Revision: 1.0

06/07/2002

Page: 8 of 8

**Product name: PHOSPHOLAN PS-220**

---

|          |   |
|----------|---|
| 2 (HMIS) | Moderate hazard   |
| 3 (HMIS) | Serious hazard  |
| 4 (HMIS) | Severe hazard   |
| X (HMIS) | Personal protection rating to be supplied by user depending on use conditions |