

**MATERIAL SAFETY DATA SHEET**

**MSDS NUMBER: M118**

**MSDS DATE: 7/21/09**

**PRODUCT NAME: ISOOCTYL ACID PHOSPHATE**

24 HOUR EMERGENCY PHONE: 1-800-424-9300

**I. PRODUCT IDENTIFICATION**

**HMIS HAZARD RATINGS**

**HEALTH HAZARD 3                      FIRE HAZARD 1                      REACTIVITY 0**  
Based on the National Paint & Coatings Association HMIS rating system.

**SARA/TITLE III HAZARD CATEGORIES (See Section X)**

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

MANUFACTURER'S : IsleChem, LLC  
NAME AND : 2801 Long Road                      TELEPHONE: (716) 773-8100  
ADDRESS : Grand Island, NY 14072

CHEMICAL NAME: Phosphoric acid, Diisooctyl Ester                      CAS NUMBER: 27215-10-7 (diester)  
Phosphoric acid, Monoisooctyl ester                      26403-12-3 (monoester)

SYNONYMS/COMMON NAMES: Diisooctyl Phosphate (diester)

CHEMICAL FORMULA:  $C_8H_{19}O_4P + C_{16}H_{35}O_4P$

PRODUCT USE: Curing catalyst, oil additive, pigment dispersion agent and others

DOT PROPER SHIPPING NAME: Corrosive Liquid Acidic Organic NOS (Diisooctyl acid phosphate)  
DOT HAZARD CLASS: 8  
DOT IDENTIFICATION NUMBER: UN3265  
DOT PACKING GROUP: III  
DOT HAZARDOUS SUBSTANCE: Phosphoric acid RQ 5000 lbs.  
DOT MARINE POLLUTANT: Not applicable  
ADDITIONAL DESCRIPTION REQUIREMENT: Not applicable

CAS = Chemical Abstract Service Number                      ND = No relevant information found or not available  
PEL = OSHA Permissible Exposure Limit                      CORP = Corporate Exposure Limit  
TLV = ACGIH Threshold Limit Value, Current                      \* = See Chronic Effects Information                      NA = Not applicable

IMPORTANT: The information presented herein, while not guaranteed, was prepared by competent technical personnel and is true and accurate to the best of our knowledge. NO WARRANTY, EXPRESS OR IMPLIED IS MADE REGARDING PERFORMANCE, STABILITY, OR OTHERWISE. This information is not intended to be all-inclusive as to the manner and conditions of use, handling and storage. Other factors may involve other or additional safety or performance considerations. While our technical personnel will be happy to respond to questions regarding safe handling use procedures, safe handling and use remains the responsibility of the customer. No suggestions for use are intended as, and nothing herein shall be construed as a recommendation to infringe any existing patents or violate any Federal, State or local laws.

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## **II. HEALTH HAZARD INFORMATION**

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### **EMERGENCY AND FIRST AID PROCEDURES**

#### **EYES:**

OBJECT IS TO FLUSH MATERIAL OUT IMMEDIATELY THEN SEEK MEDICAL ATTENTION. IMMEDIATELY flush eyes with large amounts of water for at least 15 minutes forcibly holding lids apart to ensure complete irrigation of all eye and lid tissue. Washing eyes within one (1) minute is essential to achieve maximum effectiveness. SEEK MEDICAL ATTENTION IMMEDIATELY.

#### **SKIN:**

SEEK MEDICAL ATTENTION IMMEDIATELY. Flush thoroughly with cool water under shower while removing contaminated clothing and shoes. CONTINUE TO FLUSH UNTIL MEDICAL ATTENTION ARRIVES. Discard non-rubber shoes. Wash clothing before reuse.

#### **INHALATION:**

Remove to fresh air. If breathing is difficult, have trained person administer oxygen. If respiration stops, administer artificial resuscitation. GET MEDICAL ATTENTION IMMEDIATELY.

#### **INGESTION:**

DO NOT INDUCE VOMITING. This material is not soluble. DO NOT GIVE FLUIDS. If spontaneous vomiting is inevitable, PREVENT ASPIRATION by keeping the victims head below the knees. GET IMMEDIATE MEDICAL ATTENTION. A qualified physician can perform gastric lavage only when the airway (trachea) has been secured to prevent aspiration.

### **ROUTES OF EXPOSURE**

#### **INHALATION:**

Inhalation of vapors, mist or liquid may cause irritation to the mucous membranes of the nose and throat and can produce serious chemical burns.

#### **SKIN:**

Exposure to vapor, mist or liquid may irritate skin and can produce serious burns.

#### **EYE CONTACT:**

May irritate eyes and can produce chemical burns.

#### **INGESTION:**

Can cause irritation and burning of the mouth, throat and gastrointestinal tract.

### **EFFECTS OF OVEREXPOSURE**

#### **ACUTE:**

Irritating and corrosive to the eyes, skin, respiratory and digestive tracts.

#### **CHRONIC:**

No known chronic effects. This product does not contain substances that considered by OSHA, NTP, IARC, or ACGIH to be "probable" or "suspected" human carcinogens

#### **TOXICOLOGY DATA:**

Acute Oral LD50 (rat) 1800 mg/kg.

#### **SYNERGISTIC MATERIALS:**

Not Applicable.

**III. IMPORTANT COMPONENTS**

**CAS NUMBER / NAME**

27215-10-7 Phosphoric acid, Diisooctyl Ester

**EXPOSURE LIMITS**

PEL: Not established

TLV: Not established

**COMMON NAMES:**

none

**Listed On (List Legend Below):**

~~01, 02, 03, 12, 13, 14, 15, 16, 17~~ -----

**PERCENTAGE**

VOL

WT

55-67

26403-12-3 Phosphoric acid, monisooctyl ester

**EXPOSURE LIMITS**

PEL: Not Established

TLV: Not Established

**COMMON NAMES:**

none

**Listed On (List Legend Below):**

~~12, 13, 14, 12, 13, 14, 15, 17~~ -----

**PERCENTAGE**

VOL

WT

32-41

7664-38-2 Phosphoric acid

**EXPOSURE LIMITS**

PEL: 1 mg/m3, TWA

STEL 3 mg/m3

TLV: 1 mg/m3, TWA

STEL 3 mg/m3

**COMMON NAMES:**

ORTHOPHOSPHORIC ACID

**Listed On (List Legend Below):**

02, 03, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17

**PERCENTAGE**

VOL

WT

0-5

All components of this product that are required to be on the TSCA Inventory are listed on the inventory.

Not listed as carcinogen - IARC, NTP, OSHA

**LIST LEGEND**

01 New Jersey Right to Know Haz. Substance	07 CERCLA Hazardous Substance
02 Canadian WHMIS – disclose at 1%	08 SARA Title Section 313 Toxic Chemical
03 DOT Hazardous Material	09 Massachusetts Substance List
04 TSCA PAIR Substance	10 New Jersey Right to Know – Special Health Haz.
05 CWA Section 311 Hazardous Substance	11 PA Haz. Substance – Environmental Hazard
06 NIOSH Recommendation Substance	12 TSCA
13 DSL (Canada)	14 EINECS (Europe)
15 AICS (Australia)	16 PICCS (Philippines)
17 ENCS	



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## VI. PHYSICAL DATA

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<b>APPEARANCE AND ODOR:</b>	Colorless to light yellow liquid. Slight Isooctyl Alcohol odor
<b>BOILING POINT @ 760 mm Hg:</b>	No Data
<b>FREEZING POINT:</b>	No Data
<b>VAPOR PRESSURE:</b>	No Data
<b>SPECIFIC GRAVITY (H<sub>2</sub>O=1):</b>	0.99-1.01
<b>SOLUBILITY IN H<sub>2</sub>O % BY WT:</b>	Insoluble
<b>VAPOR DENSITY (Air=1):</b>	No Data
<b>ODOR THRESHOLD (ppm):</b>	No Data
<b>pH:</b>	2 @ 10 GM/L
<b>EVAPORATION RATE:</b>	No Data
<b>COEFFICIENT WATER/OIL DISTRIBUTION:</b>	No Data

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## VII. REACTIVITY DATA

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### CONDITIONS CONTRIBUTING TO INSTABILITY:

Stable under normal conditions. Avoid exposure to heat or to most metals or plastics, especially at elevated temperatures. Thermal degradation occurs above 257 °F.

### INCOMPATIBILITY:

Reacts with alkalis producing heat. Reacts with many metals such as Aluminum and Zinc liberating flammable hydrogen gas.

### HAZARDOUS DECOMPOSITION PRODUCTS:

Thermal degradation occurs above 257°F, producing oxides of phosphorus.

### CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION:

Material is not known to polymerize.

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## VIII. HANDLING AND STORAGE

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### HANDLING AND STORAGE PRECAUTIONS:

Store away from heat and separate from alkalis, aluminum, zinc and other metals. Protect from atmospheric moisture. Storage areas for drummed material should have adequate drainage. Storage tanks should be vented and diked. **FOR INDUSTRIAL USE ONLY.**

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## **IX. ENVIRONMENTAL PROCEDURES**

### **STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:**

Soak up with vermiculite, sand, earth or other absorbent material and place in marked lined steel container for disposal. Neutralize with soda ash. Flush spill area with large quantities of water. Pump large spills into marked containers for disposal or reclamation.

### **WASTE DISPOSAL METHOD:**

Product should be completely removed from container. Material that cannot be used or chemically reprocessed should be disposed of in accordance with all local, state and federal regulations. Incinerate in RCRA permitted equipment designed to handle oxides of phosphorus as combustion products or send to a waste disposal firm. Empty containers should be disposed of in a manner meeting government regulations.

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## **X. ADDITIONAL INFORMATION**

OSHA Standard 29 CFR 1910.1200 requires that information be provided to employees regarding the hazards of chemicals by means of a hazard communication program including labeling, material safety data sheets, training and access to written records. We request that you, and it is your legal duty to, make all information in this Material Safety Data Sheet available to your employees.

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.

This product contains a toxic chemical or chemicals subject to the reporting requirements of SECTION 313 of TITLE III of the SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 and 40 CFR PART 372. (See Section III, List Legend 08).

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## **XI. PREPARATION INFORMATION**

For additional Non-Emergency health, safety or environmental information telephone (716) 773-8438, or write to:

IsleChem, LLC  
2801 Long Road  
Grand Island, NY 14072

**For Emergencies: 24 HOUR EMERGENCY PHONE: 1-800-424-9300**

**To request an MSDS: 716-773-8438**

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**WARNING LABEL INFORMATION**

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**SIGNAL WORD: DANGER****STATEMENT OF HAZARDS:**

LIQUID CORROSIVE

CAUSES IRRITATION OR BURNS TO THE SKIN, EYES, RESPIRATORY AND DIGESTIVE TRACTS.

**PRECAUTIONARY STATEMENTS:**

Keep container closed.

Insure adequate ventilation or use an approved respirator.

Avoid breathing vapor.

Do not get in eyes, on skin, on clothing.

Wash thoroughly after handling.

Use goggles, impervious clothing and rubber shoes.

Reacts with aluminum, zinc, and other metals liberating flammable hydrogen gas.

**FIRST AID:****FOR EYES:**

OBJECT IS TO FLUSH MATERIAL OUT IMMEDIATELY THEN SEEK MEDICAL ATTENTION. IMMEDIATELY flush eyes with large amounts of water for at least 15 minutes forcibly holding lids apart to ensure complete irrigation of all eye and lid tissue. Washing eyes within one (1) minute is essential to achieve maximum effectiveness.

**FOR SKIN:**

SEEK MEDICAL ATTENTION IMMEDIATELY. Flush thoroughly with cool water under shower while removing contaminated clothing and shoes. CONTINUE TO FLUSH UNTIL MEDICAL ATTENTION ARRIVES. Discard non-rubber shoes. Wash clothing before reuse.

**IF INHALED:**

Remove to fresh air. If breathing is difficult, have trained person administer oxygen. If respiration stops, give mouth-to-mouth resuscitation. GET MEDICAL ATTENTION IMMEDIATELY.

**IF SWALLOWED:**

DO NOT INDUCE VOMITING. This material is not soluble. DO NOT GIVE FLUIDS. If spontaneous vomiting is inevitable, PREVENT ASPIRATION by keeping the victims head below the knees. GET IMMEDIATE MEDICAL ATTENTION. A qualified physician can perform gastric lavage only when the airway (trachea) has been secured to prevent aspiration.

**IN CASE OF:****SPILL OR LEAK:**

Soak up with vermiculite, sand, earth or other absorbent material and place in marked metal container for disposal. Neutralize with soda ash. Flush spill area with large quantities of water.

**FIRE:**

Use dry chemical, foam, carbon dioxide or water spray. Use air supplied respirator and full protection equipment. Fire will liberate toxic gases.

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**HANDLING AND STORAGE:**

Store in a cool, dry place separate from alkalies, aluminum, zinc and other metals.

**DISPOSAL:**

Product should be completely removed from container. Material that cannot be used or chemically reprocessed should be disposed of in accordance with all local, state and federal regulations. Incinerate in equipment designed and permitted to handle oxides of phosphorus as combustion products or send to a waste disposal firm. Empty containers should also be disposed of in a manner meeting government regulations.

**INFORMATION REQUIRED BY FEDERAL, STATE OR LOCAL REGULATIONS:**

This product contains:

CAS#	NAME
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27215-10-7	Phosphoric acid, diisooctyl ester
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26403-12-3	Phosphoric acid, monoisooctyl ester
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7664-38-2	Phosphoric acid
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**HMIS RATING SYSTEM:    HEALTH 3                    FLAMMABILITY 1                    REACTIVITY 0**

**FOR INDUSTRIAL USE ONLY**

For additional information, see Material Safety Data Sheet (MSDS) for this product.