

## SAFETY DATA SHEET

According to OSHA Hazard Communication Standard 29 CFR 1910.1200 (GHS)  
According to Canada WHMIS 2015

<b>Product name</b>	<b>PHOSFLEX 362</b>	
<b>Product id</b>	7015	
<b>Revision date</b>	19/06/2017	<b>Revision: 6</b>
<b>Supersedes</b>	07/04/2014	

### 1. Identification of the substance & the company

<b>Chemical name</b>	2-Ethylhexyl diphenyl phosphate
<b>Chemical formula</b>	C20 H27 O4 P
<b>Chemical family</b>	Alkyl/aryl phosphate
<b>Type of product and use</b>	Flame-retardant plasticizer
<b>Supplier</b>	ICL-IP America Inc. 622 Emerson Road - Suite 500 St Louis, Missouri 63141, USA Tel:(314)983-7884 Fax:(314)983-7607 e-mail:msdsinfo@icl-group.com
<b>Emergency Telephone</b>	Chemtrec: (800) 424-9300 Medical: PROSAR 1-888-875-1685 (24HRS)

### 2. Hazards identification

<b>GHS</b>	Product is not subject to classification according to GHS. No label elements required.
<b>NFPA Ratings (Scale 0-4)</b>	Health = 1, Fire = 1, Reactivity = 0
<b>HMIS Ratings (Scale 0-4)</b>	Health = 1, Fire =1, Reactivity = 0.

### 3. Composition / information on ingredients

Components	CAS No.	Weight %
2-Ethylhexyl diphenyl phosphate	1241-94-7	~ 95
Triphenyl phosphate	115-86-6	<5

### 4. First-aid measures

<b>Eye contact</b>	Holding the eyelids apart, flush eyes promptly with copious flowing water for at least 20 minutes. Get medical attention immediately.
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**Skin contact** Remove contaminated clothing. Wash skin thoroughly with mild soap and plenty of water for at least 15 minutes. Wash clothing before reuse. Get medical attention if irritation occurs.

**Inhalation** In case of inhalation, remove person to fresh air. Keep him quiet and warm. Apply artificial respiration if necessary and get medical attention immediately.

**Ingestion** If swallowed, wash mouth thoroughly with plenty of water. Get medical attention immediately.

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NOTE: Never give an unconscious person anything to drink  
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**Symptoms / Effects, Acute and Delayed** No specific information available

**Most important symptoms and effects, acute or delayed**

None known

**Notes to the physician** Treat symptomatically and supportively.

## 5. Fire - fighting measures

**Suitable extinguishing media** Water, water fog, carbon dioxide (CO<sub>2</sub>), dry chemical, foam.

**Unusual fire and explosion hazards** When heated to decomposition, may release poisonous and corrosive fumes of carbon dioxide, carbon monoxide and phosphorus oxides.

**Fire fighting procedure** Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA). Contain runoff to prevent entry into water or drainage systems.

## 6. Accidental release measures

**Personal precautions** Wear appropriate safety clothing and eye/face protection (see Section 8).

**Methods for cleaning up** Soak up with sand or other suitable absorbent and dispose of as solid waste. Collect in suitable and properly labeled containers. Ventilate area and wash spill site after material pickup is complete.

**Environmental precautions** Prevent product from entering drains, ditches and rivers.

## 7. Handling and storage

**Handling** Avoid bodily contact. Keep containers tightly closed.

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**Storage** Store in a dry, cool, well-ventilated area away from incompatible materials (see "materials to avoid"). Noncorrosive to glass or metals. May soften or deteriorate certain plastics and elastomers (vinyl-based resins and synthetic rubbers).

## 8. Exposure controls / personal protection

### Exposure Limits :

Components	ACGIH-TLV Data	Korea OEL	OSHA (PEL) Data
2-Ethylhexyl diphenyl phosphate 1241-94-7	Not determined	Not determined	Not determined
Triphenyl phosphate 115-86-6	3 mg/m <sup>3</sup>	Not determined	3 mg/m <sup>3</sup>

**Ventilation requirements** Ventilation must be sufficient to maintain atmospheric concentration below recommended exposure limit.

### Personal protective equipment:

- **Respiratory protection** In case of insufficient ventilation wear suitable respiratory equipment.
- **Hand protection** Neoprene gloves
- **Eye protection** Chemical safety goggles
- **Skin and body protection** Body covering clothes and boots

**Hygiene measures** Do not eat, smoke or drink where material is handled, processed or stored. Wash hands thoroughly after handling and before eating or smoking. Safety shower and eye bath should be provided.

## 9. Physical and chemical properties

**Appearance** Clear, transparent liquid  
**Odor** None.  
**Odor threshold** Not determined  
**pH** Not applicable  
**Melting point/range** -30°C  
**Boiling point/range** 239°C (10mmHg)  
**Pour point** -54°C (-65 °F)  
**Flash point** 224°C (435°F) (open cup)  
**Evaporation rate (ether=1)** Not determined  
**Flammability (solid, gas)** Not applicable  
**Flammable/Explosion limits** Not flammable/Not explosive  
**Vapor pressure** 0.2 mmHg (150°C)  
**Vapor density** Not available  
**Density** 1.090 g/mL (25°C)  
**Solubility:**  
- **Solubility in water** 50.6µg/l at 23.5°C  
**Partition coefficient (n-octanol/water)** Log Kow : 5.87 (25°C)

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<b>Auto-ignition temperature</b>	Not self-ignitable
<b>Decomposition temperature</b>	Not available
<b>Viscosity</b>	16.4 cP (25°C)
<b>Explosive properties</b>	There are no chemical groups associated with explosive properties present in the molecule
<b>Oxidising properties</b>	No oxidising properties can be predicted on the basis of chemical structure

## 10. Stability and reactivity

<b>Stability</b>	Stable under normal conditions
<b>Conditions to avoid</b>	Heating above decomposition temperature.
<b>Materials to avoid</b>	Acids. alkalies.
<b>Hazardous decomposition products</b>	Carbon dioxide and carbon monoxide. Phosphorus oxides.

## 11. Toxicological information

<b>Acute toxicity:</b>	
- Rat oral LD50	15800 mg/kg bw
- Rat inhalation LC50	2100 mg/m <sup>3</sup> air
<b>Skin corrosion/irritation</b>	Slightly irritating to skin but not sufficient for classification.
<b>Serious eye damage/ irritation</b>	Slightly irritant. Does not meet classification criteria
<b>Respiratory or skin sensitisation</b>	Not a sensitizer
<b>Chronic toxicity</b>	Rats and dogs fed 2-ethyl hexyl diphenyl phosphate in their diets for two years showed a decrease growth rate.
<b>Mutagenicity</b>	Not mutagenic by the Ames Test and by mouse lymphoma assay.
<b>Carcinogenicity</b>	Not classified by IARC Not included in NTP 14th Report on Carcinogens Not classified as a carcinogen by USA OSHA
<b>Developmental toxicity</b>	In a developmental toxicity test, the product was not teratogenic or embryotoxic when administered orally to pregnant rats at doses that produced maternal toxicity. When pregnant rats were fed at high doses, offspring had lower body weights.
<b>Specific Target Organ Toxicity (STOT) - Single exposure</b>	No effects on specific target organs have been identified
<b>Specific Target Organ Toxicity (STOT) - Repeat exposure</b>	NOAEL 7.3 mg/kg bw /day (90 days oral, rat) Target organs: digestive: liver

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**Neurotoxicity** No signs of acute delayed neurotoxicity when administered orally to hens.

## 12. Ecological information

**Note:** The aquatic toxicity was tested above the solubility level

**Chronic toxicity** The No Observed Effect Concentration (NOEC) in Daphnia magna after exposure of 21 day is 0.018-0.043 mg/L

**Biodegradation** Readily biodegradable - Modified Sturm Test (OECD 301B)

**Bioaccumulative potential** Not bioaccumulative  
BCF > or = 100

## 13. Disposal considerations

**Waste disposal** Observe all federal, state and local environmental regulations when disposing of this material

**Disposal of Packaging** Dispose of in a safe manner in accordance with local/national regulations.

## 14. Transportation information

**DOT** Not regulated

**IMDG** Not regulated

**ICAO/IATA** Not regulated

## 15. Regulatory information

**USA** Reported in the EPA TSCA Inventory.

- **SARA 313** This product does not contain a chemical listed at or above de minimis concentrations

- **Massachusetts Right-to-Know Hazardous Substances list** Listed (Triphenyl phosphate)

- **New Jersey Right-to-Know Hazardous Substances list** Listed (Triphenyl phosphate)

- **Pennsylvania Right-to-Know Hazardous Substances list** Listed (Triphenyl phosphate)

- **Rhode Island Right-to-Know Hazardous Substances list** Listed (Triphenyl phosphate)

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**- California-Prop 65** This product does not contain any ingredient known to the State of California to cause cancer or reproductive toxicity as listed under the State drinking Water and Toxic Enforcement Act of 1986.

**- Waste Classifications** This material does not meet RCRA`s characteristic definition of ignitability, corrosivity, or reactivity, and is not listed in 40CFR 261.33.

**Canada** Listed in DSL

**EU** Reported in EINECS

Regulated in France - Possible work-related illnesses, Tables A and B (Code de la Sécurité Sociale, Section III, Annex A, Article D.461-1, July 1999)

**Australia** Listed in AICS

**China**  
**- China inventory** Listed in IECSC

**Japan** ENCS no. (3)-2520  
ISHL no. (3)-2520

**Korea** Listed

**Mexico** Listed in the National Inventory of Chemical Substances (INSQ).

**New Zealand Inventory** Listed in NZIoC

**Philippines** Listed in PICCS

**Turkey** Listed

**Taiwan** Listed (TCSI)

**Vietnam** Listed

## 16. Other information

This data sheet contains changes from the previous version in section(s)  
1,2 & 3 (REACH), 15

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## Health, Safety & Environment Policy

We will strive to ensure that our operations and products meet the needs of the present global community without compromising the ability of future generations to meet their needs. We accept that the success of our business is dependent on the supply of products and services that will benefit society whilst ensuring human safety and protection of the environment and natural resources. Within the framework of our commitment to the Responsible Care program, we will provide a healthy and safe work environment for employees and will responsibly manage our products at all stages of their life cycle in order to protect human health and the environment whilst maintaining high production standards of operation.

Comply with or exceed applicable national and international regulatory requirements and other requirements to which we subscribe. Communicate openly and actively encourage dialogue with employees, customers and community concerning our products and operations. Implement documented management systems consistent with and for promotion of the Responsible Care ethics. TO MEET THIS COMMITMENT WE WILL:

Develop and supply products that can be manufactured, transported, used and disposed of safely whilst best meeting the needs of our customers. Regularly assess, continually improve and responsibly manage health, safety and environmental risks associated with products and processes throughout their life-cycles. Share knowledge and expertise with others and seek to learn from and incorporate improved practices into our own operations.

Educate and train employees, contractors and customers to improve their HSE performance. Communicate up-to-date information to enable our workers, customers and other interested parties to handle our products in a safe and environmentally responsible manner. Endeavor to work with customers, suppliers, distributors and contractors to foster the safe use, transport and disposal of our chemicals. Support Product Stewardship programs in cooperation with customers, distributors and transporters.

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**End of safety data sheet**