# Material Safety Data Sheet

**DI OCTYL PHOSPHORIC ACID** (RXSOL-19-1148-050)

## 1. Product and Company Identifaction

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| Product Name | DI OCTYL PHOSPHORIC ACID |
| Part Number | RXSOL-19-1148-050 |

Company Details:

RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
VASHI ,NEW BOMBAY 400703 INDIA

Branch : Kandla, Mumbai , Chennai, Vizag, Kolkata, UAE , OMAN , CANADA and KENYA

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|---|---|
| Phone | +91 22 20871200 - 1400 |
| Fax | +91 22 27612100 :::AOH :0091 9821214367 |
| Email | mail@rxmarine.com |
| Website | www.rxmraine.comA |


## 2. Composition / informationon ingredients

| Chemical Name | CAS | EC number | Weight | Formula |
|---|---|---|---|---|
| Dioctyl Phosphoric acid | 3115-39-7 | 221-485-7 | = 100 % | $C_{16}H_{35}O_4P$ |

## 3. Hazards Identification

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| Signal Word | Danger |
| Hazard Statements | H301 H315 H318 H335 Toxic if swallowed. Causes skin irritation. Causes serious eye damage. May cause respiratory irritation. |
| Precautionary statements | P280 P261 P301/P310 P305/P351/P338 Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapours/spray IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing. |
| Classification of the substance or mixture | Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008. |
| Supplemental Hazard Statements | None. |
| Other hazards | This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. |

## 4. First Aid Measures

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| General advice | If medical attention is required, show this safety data sheet to the doctor. |
| If inhaled | If inhaled, move person to fresh air. If not breathing, give artificial respiration and consult a physician. |
| Eye Contact | Immediately rinse eyes with plenty of water for at least 15 minutes. Consult a physician. |
| Swallowed | Never give anything by mouth to an unconscious person. Rinse mouth with water. Do NOT induce vomiting unless advised to do so by a physician or Poison Control Center. Seek medical attention. |
| Skin Contact | Wash affected area with soap and water. Consult a physician if any exposure symptoms are observed. |
| Inhalation | Remove patient to fresh air, keep warm and at rest and get medical assistance in necessary. |

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| Ingestion | Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately. |
| Most important symptoms and effects, both acute and delaye | No data available |
| Indication of any immediate medical attention and special treatment needed | No data available |

## 5. Fire-fighting Measures

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| Flammability | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| Suitable extinguishing media | Carbon dioxide (CO2) Foam Dry powder |
| Unsuitable extinguishing media | For this substance/mixture no limitations of extinguishing agents are given. |
| Special hazards arising from the substance or mixture | Carbon oxides, Phosphorous oxides |
| Further information | No data available. |
| Hazardous combustion products | Fire may cause the evolution of Sulphur oxides, nitrogen oxides. |
| Advice for firefighters | Wear self contained breathing apparatus for fire fighting if necessary. Use personal protection equipment. |
| Protective Equipment | Use personal protective equipment. |
| Specific Hazards Arising from the Chemical | Oxides of phosphorus Sodium oxides Not combustible. Fire may cause evolution of: Oxides of phosphorus Ambient fire may liberate hazardous vapours. |

## 6. Accidental Release Measures

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| Personal precautions, protective equipment and emergency procedures | Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. Avoid contact with skin, eyes or clothing. |
| Spillage | Oxidizing material. Stop leak if without risk. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep substance damp using water spray. Do not touch spilled material. Prevent entry into sewers, basements or confined areas dike if needed. Eliminate all ignition sources. Call for assistance on disposal. |
| Enviromental Precaution | Prevent further leakage or spillage if safe to do so. Do not let product enter drains. |
| Methods and materials for containment and cleaning | Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. |

## 7. Handling and Storage

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| Advice on protection against fire and explosion | Keep away from open flames, hot surfaces and sources of ignition.Take precautionary measures against static discharge. |
| Incompatible materials | Keep away from alkalis, strong oxidizing agents and metals. Provide containment walls of adequate capacity to hold any accidental spills. |
| Hygiene measures | Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2. |
| Precautions for safe handling | Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. |
| Storage conditions | Keep container tightly closed in a dry and well-ventilated place. Keep in a dry place. |
| Storage class | Storage class (TRGS 510): 3: Flammable liquids |
| Specific end use(s) | For scientific research and development only. Not for use in humans or animals. |
| Advice on general occupational hygiene | Advice on safe handling Observe label precautions. Change contaminated clothing. Wash hands after working with substance. |
| Requirements for storage | Keep in cool and store under shade. |

## 8. Exposure controls and personal protection

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| Exposure controls | Appropriate engineering controls Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. |

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| Control parameters | Contains no components with established occupational exposure limits. |
| Engineering Control | A laboratory fumehood or other appropriate form of local exhaust ventilation should be used to avoid exposure. |
| Eye/face protection | Safety goggles or face shield. All equipment should have been tested and approved under appropriate standards, such as NIOSH (US), CSA (Canada), or EN 166 (EU). |
| Body Protection | Fire resistant (Nomex) lab coat or coveralls. |
| Skin protection | Gloves should be used when handling this material. Gloves are to be inspected prior to use. Contaminated gloves are to be removed using proper glove removal technique so that the outer surface of the glove does not contact bare skin. Dispose of contaminated gloves after use in compliance with good laboratory practices and local requirements. Gloves used for incidental exposures (splash protection) should be designated as “chemical resistant” by EU standard EN 374 with the resistance codes corresponding to the anticipated use of the material. Unrated gloves are not recommended. Suggested gloves: AnsellPro Sol-Vex nitrile gloves style 37-175, 15 mil thickness. Penetration time has not been determined. Gloves used for prolonged direct exposure (immersion) should be designated “chemical resistant” as per EN 734 with the resistance codes corresponding to the anticipated use of the material. Suggested gloves: AnsellPro Viton/Butyl gloves style 38-612, 4/8 mil thickness. Penetration time has not been determined. These recommendations may not apply if the material is mixed with any other chemical, or dissolved into a solution. A risk assessment must be performed to ensure the gloves will still offer acceptable protection. |
| Respiratory protection | Recommended respirators are NIOSH-approved N100 or CEN-approved FFP3 particulate respirators. These are to be only used as a backup to local exhaust ventilation or other engineering controls. If the respirator is the only means of protection, a full-face supplied air respirator must be used. |
| Other Protection Measure | Handle in accordance with good industrial hygiene and safety practice. |
| Control of environmental exposure | Do not let product enter drains. Risk of explosion. |



Gloves



Suit

## 9. Physical and chemical properties

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| Physical state | Off-White Low-Melting Solid |
| Colour | No data available |
| Odour | No data available |
| Odor Threshold | No data available |
| pH | No data available |
| Melting Point | No data available |
| Boiling Point | No data available |
| Flash Point | No data available |
| Evaporation Rate | Not Applicable |
| Flammability (solid, gas) | No data available |
| Explosive limits | No Data Available |
| Upper/lower flammability or explosive limits | No data available |
| Autoignition temperature | No data available |
| Decomposition temperature | No data available |
| Vapour pressure | No data available |
| Density | No data available |
| Relative Density | No data available |
| Relative vapor density | No data available |
| Freezing point | No data available |
| Viscosity dynamic | No data available |
| Partition coefficient | No data available |
| Explosive properties | No data available |
| Solubility | No data available |

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| Ignition temperature | No information available. |
| Particle characteristics | No data available |

## 10. Stability and reactivity

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| Reactivity | No data available |
| Stability | Stable under recommended storage conditions. |
| Possibility of hazardous reactions | Caution! In contact with nitrites, nitrates, nitrous acid possible liberation of nitrosamines! Exothermic reaction with: Nitriles Acid anhydrides acids nitrous acid |
| Conditions to avoid | Warming. |
| Incompatible materials | Strong oxidizing agents. |
| Hazardous decomposition products | No data available |

## 11. Toxicological information

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| Acute toxicity | No data available |
| Skin corrosion/irritation | May be harmful if absorbed through skin. Causes skin irritation. |
| Serious eye damage/eye irritation | Causes severe eye burns and possible permanent eye damage. |
| Respiratory or skin sensitization | In vivo assay - Mouse Result: Does not cause skin sensitization. Remarks: (ECHA) |
| Toxic Effects on Human | May cause damage to the following organs: upper respiratory tract. Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant, sensitizer), of ingestion, of inhalation (lung irritant, lung sensitizer). |
| Carcinogenicity | No data available |
| Germ cell mutagenicity | No data available |
| Reproductive toxicity | No data available |
| Specific target organ toxicity - single exposure | No data available |
| Special Remarks on other Toxi Effects on Humans | Acute Potential Health Effects: Skin: Causes skin irritation. May cause skin sensitization, an allergic reation, which becomes evident upon re-exposure to this material. Eyes: Causes eye irritation. Ingestion: Causes gastrointestinal (digestive) tract irritation with nausea, vomiting, and diarrhea. May be harmful if swallowed. Inhalation: Causes respiratory tract irritation. May cause chemical pneumonitis and pulmonary edema, inflammation, edema of bronchi and larynx. Chronic Potential Health Effects: Repeated or prolonged skin exposure may cause allergic reactions in sensitive individuals. Repeated or prolonged exposure by inhalation may affect respiration and metabolism. |
| Endocrine disrupting properties | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Repeated dose toxicity - Rat - male and female - Oral - 14 d - NOAEL (No observed adverse effect level) - 300 mg/kg RTECS: JL9200000 Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. |

## 12. Ecological information

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| Bioaccumulative potential | No data available |
| Persistence and degradability | Biodegradability aerobic - Exposure time 28 d Result: 97 - 99 % - Readily biodegradable. (OECD Test Guideline 301B) Ratio BOD/ThBOD > 90 % |
| Toxicity to fish | Semi-static test LC50 - Oryzias latipes - 27 mg/l - 96 h (OECD Test Guideline 203) |
| Toxicity to daphnia and other aquatic invertebrates | Static test EC50 - Daphnia magna (Water flea) - 73,34 mg/l - 48 h (Regulation (EC) No. 440/2008, Annex, C.2) |
| Toxicity to algae | Static test ErC50 - Desmodesmus subspicatus (green algae) - 11,8 mg/l - 72 h (DIN 38412) |
| Toxicity to bacteria | Static test EC50 - activated sludge - > 1.000 mg/l - 30 min (OECD Test Guideline 209) |
| Mobility in soil | No Information available |
| Results of PBT and vPvB assessment | This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. |

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| Endocrine disrupting properties | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |
| Other adverse effects | No data available |

## 13. Disposal considerations

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| Disposal methods | The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems. |
| Contaminated packaging | Dispose of as above. |
| Waste treatment Method | Product may be burned in an incinerator equipped with afterburner and scrubber. Excess and expired materials are to be offered to a licensed hazardous material disposal company. Ensure that all Federal and Local regulations regarding the disposal and destruction of this material are followed. |

## 14. Transport information

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| UN number | ADR/RID: 2810 | IMDG:2810 | IATA:2810 | |
| UN proper shipping name | ADR/RID:Phosphoric Acid Dioctyl | | IMDG: Phosphoric Acid Dioctyl | IATA:Phosphoric Acid Dioctyl |
| Transport hazard class(es) | ADR/RID: 6.1 | IMDG:6.1 | IATA: 6.1 | |
| Packaging group | ADR/RID: III | IMDG: III | IATA: III | |
| Environmental hazards | ADR/RID: NO | IMDG: NO | IATA: NO | |
| Further information | No data available | | | |

## 15. Regulatory information

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| Inventory status | Components are on the following inventories: Polymaleic acid: - US TSCA, Canadian DSL, EU EINECS, Australian AICS, Korean, Philippine PICCS and Chinese Xi irritant R 36/38 Irritant to eyes & skin R 41 Risk of serious damage to eyes S24/25 Avoid contact with skin and eyes S26/28 In case of contact eyes & skin, rinse with plenty water and seek medical advice Section 312/313: Not listed. Not listed under California proposition 65. |
| Safety, health and environmental regulations/legislation specific for the substance or mixture | This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006. |
| National legislation | Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. : ACUTE TOXIC : FLAMMABLE LIQUIDS |
| Other regulations | Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable. Take note of Dir 94/33/EC on the protection of young people at work. |
| Chemical Safety Assessment | For this product a chemical safety assessment was not carried out |

## 16. Other information

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| Other Information | The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and weassume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Rx Marine International has been advised of the possibility of such damages.<br><br>DISCLAIMER OF LIABILITY :The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable. |