# Safety Data Sheet

Version 7.0
Revision Date: 08/02/2019

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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|---|---|
| Product name: | **Phenol-$d_6$** |
| Product abbreviation: | D6Phenol |
| Product use: | For laboratory research purposes. |
| Supplier / Manufacturer: | Polymer Source, Inc. |
| Address: | 124 Avro street, Dorval (Montreal), Quebec H9P 2X8, Canada |
| Telephone: | (+1) 514-421-5517 |
| Toll free: | 1-866-422-9842 |
| Fax: | (+1) 514-421-5518 |
| Emergency phone: | (+1) 514-887-5517 |
| E-mail: | info@polymersource.com |

## 2. HAZARDS IDENTIFICATION

Emergency overview:

Target organs: Central nervous system, Kidney, Liver, Pancreas, Spleen.

Other hazards which do not result in classification:

Vesicant, Rapidly absorbed through skin.

WHMIS classification:

D1A. Very toxic material causing immediate and serious toxic effects: Highly toxic by inhalation.

D1B. Toxic material causing immediate and serious toxic effects: Toxic by injection.

D2B. Toxic material causing other toxic effects: Toxic by skin absorption.

E. Corrosive material.
Chronic toxicity, Mutagen, Corrosive to skin

GHS classification:

Acute toxicity, Oral (Category 3)

Acute toxicity, Inhalation (Category 2)

Acute toxicity, Dermal (Category 3)

Skin corrosion/irritation (Sub-category 1B)

Serious eye damage/eye irritation (Category 1)

Germ cell mutagenicity (Category 2)

Specific target organ toxicity – repeated exposure (Category 2)

Acute aquatic toxicity (Category 3)

Chronic aquatic toxicity (Category 2

GHS Label elements, including precautionary statements:

Pictogram:

Signal word: Danger

Hazard statements:

H301 + H311. Toxic if swallowed or in contact with skin.
H314. Causes severe skin burns and eye damage.
H330. Fatal if inhaled.
H341. Suspected of causing genetic defects.
H373. May cause damage to organs through prolonged or repeated exposure.
H402. Harmful to aquatic life.
H411. Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201. Obtain special instructions before use.
P202. Do not handle until all safety precautions have been read and understood.
P260. Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264. Wash skin thoroughly after handling.
P270. Do not eat, drink or smoke when using this product.
P271. Use only outdoors or in a well-ventilated area.
P273. Avoid release to the environment.
P280. Wear protective gloves/ protective clothing/ eye protection/ face protection.
P284. Wear respiratory protection.
P301 + P310 + P330. *IF SWALLOWED*: Immediately call a Poison Center and/or doctor. Rinse mouth.
P301 + P330 + P331. *IF SWALLOWED*: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353. *IF ON SKIN (OR HAIR)*: Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P310. *IF INHALED*: Remove person to fresh air and keep comfortable for breathing. Immediately call a Poison Center and/or doctor.
P305 + P351 + P338 + P310. *IF IN EYES*: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a Poison Center and/or doctor.
P308 + P313. *IF EXPOSED OR CONCERNED*: Get medical advice/ attention.
P361 + P364. Take off immediately all contaminated clothing and wash it before reuse.

P391. Collect spillage.

P403 + P233. Store in a well-ventilated place. Keep container tightly closed.

P405. Store locked up.

P501. Dispose of contents/ container to an approved waste disposal plant.

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| HMIS classification: | Health hazard: | 4 |
| | Chronic health hazard: | * |
| | Flammability: | 0 |
| | Physical hazards: | 0 |
| Potential health effects: | Inhalation: | May be fatal if inhaled.<br>Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. |
| | Skin: | Toxic if absorbed through skin. Causes skin burns. |
| | Eyes: | Causes eye burns. |
| | Ingestion: | Toxic if swallowed. |

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

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| Formula: | Phenol-$d_6$: | $C_6D_6O$ |
| Molecular weight: | 100.1 g/mol | |
| Synonym: | Hexadeuterophenol | |
| Concentration: | ≤ 100 % | |
| CAS registry number: | Phenol-$d_6$: | 13127-88-3 |
| Index number: | | 236-063-8 |

## 4. FIRST AID MEASURES

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| General advice: | Consult a physician. Show this safety data sheet to the doctor in attendance.Move out of dangerous area. |
| If inhaled: | If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| In case of skin contact: | Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician. |
| In case of eye contact: | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.Continue rinsing eyes during transport to hospital. |
| If swallowed: | Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. |

## 5. FIRE-FIGHTING MEASURES

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| Suitable extinguishing media: | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |

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| Special protective equipment for firefighters: | Wear self contained breathing apparatus for firefighting if necessary. | |
| Hazardous combustion products: | Hazardous decomposition products formed under fire conditions: Carbon oxides. | |
| Explosion data: | Sensitivity to mechanical impact: | no data available |
| | Sensitivity to static discharge: | no data available |
| Further information: | Use water spray to cool unopened containers. | |

## 6. ACCIDENTAL RELEASE MEASURES

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| Personal precautions: | Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. |
| Environmental precautions: | Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. |
| Methods and materials for containment and cleaning up: | 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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| 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. |
| Conditions for safe storage: | Keep container tightly closed in a dry and well-ventilated place. |

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protective equipment:

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| • Respiratory protection: | Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). |
| • Hand protection: | Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. |
| • Eye protection: | Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). |
| • Skin and body protection: | Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. |

- Hygiene measures: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.
- Specific engineering controls: Use mechanical exhaust or laboratory fumehood to avoid exposure.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| | | |
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| Appearance: | Form: | solid |
| | Colour: | white or colourless |
| Safety data: | pH: | no data available |
| | Melting point / Freezing point: | m.p.: 40–42 °C (lit.) |
| | Boling point: | b.p.: 182 °C (lit.) |
| | Flash point: | 79 °C (lit.) – closed cup |
| | Ignition temperature: | 715 °C |
| | Auto-ignition temperature: | 715 °C |
| | Lower explosion limit: | 1.7 % (V) |
| | Upper explosion limit: | 8.6 % (V) |
| | Vapour pressure: | 0.36 hPa (0.27 mmHg) at 20.0 °C |
| | Density: | 1.14 g/mL at 25 °C |
| | Water solubility: | no data available |
| | Partition coefficient: n-octanol/water: | log Pow: 1.46 |
| | Relative vapour density: | no data available |
| | Odour: | no data available |
| | Odour threshold: | no data available |
| | Evaporation rate: | no data available |

## 10. STABILITY AND REACTIVITY

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| Chemical stability: | Stable under recommended storage conditions. |
| Radioactivity: | Stable isotope compound. Not radioactive. |
| Possibility of hazardous reactions: | no data available |
| Conditions to avoid: | no data available |
| Materials to avoid: | Strong oxidizing agents, strong bases, strong acids. |
| Hazardous decomposition products: | Hazardous decomposition products formed under fire conditions: Carbon oxides. |
| | Other decomposition products: no data available. |

## 11. TOXICOLOGICAL INFORMATION

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| Acute toxicity: | Oral LD50: | no data available |

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| | Inhalation LC50: | Rat: 4 h – 316 mg/m3 |
| | Dermal LD50: | Rabbit: 630.0 mg/kg |
| | Other information on acute toxicity: | no data available |
| Skin corrosion/irritation: | no data available | |
| Serious eye damage/eye irritation. | Eyes – Rabbit: Severe eye irritation. | |
| Respiratory or skin sensitization: | no data available | |
| Germ cell mutagenicity: | In vitro tests showed mutagenic effects. | |
| Carcinogenicity: | IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. | |
| Reproductive toxicity: | no data available | |
| Teratogenicity: | no data available | |
| Specific target organ toxicity: | Single exposure (Globally Harmonized System): no data available | |
| | Repeated exposure (Globally Harmonized System): May cause damage to organs through prolonged or repeated exposure. | |
| Aspiration hazard: | no data available | |
| Potential health effects: | Inhalation: | May be fatal if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. |
| | Ingestion: | Toxic if swallowed. |
| | Skin: | Toxic if absorbed through skin. Causes skin burns. |
| | Eyes: | Causes eye burns. |
| Signs and symptoms of exposure: | Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, cough, wheezing, laryngitis, shortness of breath, headache, nausea, vomiting, circulatory collapse, tachypnea, paralysis, convulsions, coma., necrosis of mouth and G.I. tract, jaundice, respiratory failure, cardiac arrest. | |
| Synergistic effects: | no data available | |
| Additional information: | RTECS: | not available |

## 12. ECOLOGICAL INFORMATION

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| Toxicity: | Toxicity to fish: | LC50 – Leuciscus idus (Golden orfe): 14.00–25.00 mg/l, 48 h |
| | | LC50 – Carassius auratus (goldfish): 36.10–68.80 mg/l, 96 h |
| | Toxicity to algae: | EC50 – Chlorella vulgaris (Fresh water algae): 370.00 mg/l, 96 h |

Toxicity to daphnia and other aquatic invertebrates:

EC50 – Daphnia magna (Water flea):
12.00 mg/l, 24 h

EC100 – Daphnia magna (Water flea):
100.00 mg/l, 24 h

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| Persistence and degradability: | no data available |
| Bioaccumulative potential: | no data available |
| Mobility in soil: | no data available |
| PBT and vPvB assessment: | no data available |
| Other adverse effects: | An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.<br>Toxic to aquatic life with long lasting effects.<br>An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.<br>Harmful to aquatic life. |

## 13. DISPOSAL CONSIDERATIONS

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| Product: | Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. |
| Contaminated packaging: | Dispose of as unused product. |

## 14. TRANSPORT INFORMATION

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| DOT (US): | UN number: 1671<br>Class: 6.1<br>Packing group: II<br>Proper shipping name: Phenol, solid<br>Reportable Quantity (RQ):<br>Marine pollutant: No<br>Poison Inhalation Hazard: No |
| IMDG: | UN number: 1671<br>Class: 6.1<br>Packing group: II<br>EMS-No: F-A, S-A<br>Proper shipping name: Phenol. solid<br>Marine pollutant: No |
| IATA: | UN number: 1671<br>Class: 6.1<br>Packing group: II<br>Proper shipping name: Phenol, solid |

## 15. REGULATORY INFORMATION

WHMIS classification:

D1A. Very toxic material causing immediate and serious toxic effects: Highly toxic by inhalation.

D1B. Toxic material causing immediate and serious toxic effects: Toxic by injection.

D2B. Toxic material causing other toxic effects: Toxic by skin absorption.

E. Corrosive material.
Chronic toxicity, Mutagen, Corrosive to skin

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

## 16. OTHER INFORMATION

Date of the latest revision: 8 February 2019

Further information: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Polymer Source, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. See www.polymersource.ca for additional terms and conditions of sale.