MATERIAL SAFETY DATA SHEET

1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifiers

Product Name: Phenyl Mercury Nitrate
CAS NO.: 8003-05-2

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Laboratory chemicals, Manufacture of substances
Uses advised against:

1.3 Details of the supplier of the safety data sheet

COMPANY: DR. J. PHARMACHEM (INDIA)
722/AB/15 ‘NIRMAL’, LAXMI PARK COLONY,
NAVI PETH, PUNE - 411 030. INDIA
Telephone: 020-24530071
Fax: 020-24530110

2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]
- Acute toxicity, Oral (Category 3)
- Specific target organ toxicity - repeated exposure (Category 1)
- Skin corrosion (Category 1B)
- Acute aquatic toxicity (Category 1)
- Chronic aquatic toxicity (Category 1)

Classification according to EU Directives 67/548/EEC or 1999/45/EC
- Toxic if swallowed. Toxic: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed. Causes burns. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

Pictogram:

Signal word: Danger

Hazard statement(s):
- H301: Toxic if swallowed.
- H314: Causes severe skin burns and eye damage.
- H372: Causes damage to organs through prolonged or repeated exposure.
<table>
<thead>
<tr>
<th>H410</th>
<th>exposure. Very toxic to aquatic life with long lasting effects.</th>
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</table>

**Precautionary statement(s)**

| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/ protective clothing/ eye protection/ face protection. |
| P301 + P310 | IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P310 | Immediately call a POISON CENTER or doctor/ physician. |
| P501 | Dispose of contents/ container to an approved waste disposal plant. |

**Supplemental Hazard Statements**

none

**According to European Directive 67/548/EEC as amended**

**Hazard symbol(s)**

- ☠️
- ☠️

**R-phrase(s)**

- R25: Toxic if swallowed.
- R34: Causes burns.
- R48/24/25: Toxic: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed.
- R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**S-phrase(s)**

- S23: Do not breathe gas/fumes/vapour/spray.
- S24/25: Avoid contact with skin and eyes.
- S37: Wear suitable gloves.
- S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- S60: This material and its container must be disposed of as hazardous waste.
- S61: Avoid release to the environment. Refer to special instructions/ Safety data sheets.

**2.3 Other hazards**

none

**3 COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 Substances**

**Synonyms**

- Mercury, hydroxyphenyl-, mixt. with Phenylmercuric nitrate;
- Phenylmercuric nitrate

**Formula**

C₁₂H₁₁Hg₂NO₄

**Molecular Weight**

634.4 g/mol

**Component**

Concentration
Phenyl mercury nitrate

Other unknown impurities

4 FIRST AID MEASURES

4.1 Description of first aid measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.

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.

If swallowed
Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

4.3 Indication of any immediate medical attention and special treatment needed
No data available

5 FIREFIGHTING MEASURES

5.1 Extinguishing media

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

5.2 Special hazards arising from the substance or mixture
Carbon oxides, nitrogen oxides (NOx), Mercury/mercury oxides.

5.3 Advice for firefighters
Wear self contained breathing apparatus for firefighting if necessary.

5.4 Further information
No data available

6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

6.2 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.

6.3 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.

6.4 Reference to other sections
For disposal see section 13.

7 HANDLING AND STORAGE

7.1 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, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

### Specific end uses
No data available.

### EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Control parameters

#### Components with workplace control parameters

#### Exposure controls

**Appropriate engineering controls**
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

**Personal protective equipment**

**Eye/face 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 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. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**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.

**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).

### PHYSICAL AND CHEMICAL PROPERTIES

#### Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
</table>
| Appearance | Form: Powder  
Colour: White to off white |
<p>| Odour | Odourless |
| Odour Threshold | Odourless |
| pH | No data available |
| Melting point/freezing point | 175-185°C |
| Initial boiling point and boiling range | No data available |
| Flash point | No data available |
| Enthalpy of Vaporization | No data available |
| Index of Refraction | No data available |
| Molar Refractivity | No data available |
| Vapour pressure | No data available |
| Density | No data available |
| Oxidizing properties | No data available |
| Solubility | Slightly soluble in alcohol, very slightly soluble in |</p>
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<tr>
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</thead>
<tbody>
<tr>
<td><strong>Partition coefficient: noctanol/water</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Polarizability</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Decomposition temperature</strong></td>
<td>No data available</td>
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<tr>
<td><strong>Molar Volume</strong></td>
<td>No data available</td>
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<tr>
<td><strong>Surface Tension</strong></td>
<td>No data available</td>
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</tbody>
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9.2 **Other safety information**

| IUPAC Name | Hydroxy-phenyl-mercury; nitrooxy-phenyl-mercury |
| Molecular Formula | C12H11Hg2NO4 |
| Molecular Weight | 634.4 |
| SMILES | O\[Hg\]c1ccccc1.[O][N+]\(=\)O\[Hg\]c1ccccc1 |
| InChI | InChI=1/2C6H5.2Hg.NO3.H2O/c2*1-2-4-6-5-3-1-;2-1(3)4/h2*1-5H;;1H2/q;;;;-1; |
| EINECS | 200-242-9 |

10 **STABILITY AND REACTIVITY**

10.1 **Reactivity**

10.2 **Chemical stability**

10.3 **Possibility of hazardous reactions**

10.4 **Conditions to avoid**

10.5 **Incompatible materials**

10.6 **Hazardous decomposition products**

Other decomposition products - no data available

11 **TOXICOLOGICAL INFORMATION**

11.1 **Information on toxicological effects**

11.1.1 **Acute toxicity**
LD50 Subcutaneous - rat - 56 mg/kg

11.1.2 **Skin corrosion/irritation**
no data available

11.1.3 **Serious eye damage/eye irritation**
no data available

11.1.4 **Respiratory or skin sensitization**
no data available

11.1.5 **Germ cell mutagenicity**
no data available

11.1.6 **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.

11.1.7 **Reproductive toxicity**
no data available

11.1.8 **Specific target organ toxicity - single exposure**
no data available

11.1.9 **Specific target organ toxicity - repeated exposure**
Causes damage to organs through prolonged or repeated exposure.

11.1.10 **Aspiration hazard**
no data available

11.1.11 **Potential health effects**

11.1.12 **Inhalation**
Toxic if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper
| **Ingestion** | Toxic if swallowed. Causes burns. |
| **Skin** | Toxic if absorbed through skin. Causes skin burns. |
| **Eyes** | Causes eye burns. |

**Additional Information**

| RTECS | OW8400000 |

**12 ECOLOGICAL INFORMATION**

| 12.1 Toxicity | no data available |
| 12.2 Persistence and degradability | no data available |
| 12.3 Bioaccumulative potential | no data available |
| 12.4 Mobility in soil | no data available |
| 12.5 Results of PBT and vPvB assessment | no data available |
| 12.6 Other adverse effects | Very toxic to aquatic life. |

**13 DISPOSAL CONSIDERATIONS**

**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. 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.

**Contaminated packaging**

Dispose of as unused product.

**14 TRANSPORT INFORMATION**

| 14.1 UN number | ADR/RID | IMDG | IATA |
| 1895 | 1895 | 1895 |
| 14.2 UN proper shipping name | ADR/RID | IMDG | IATA |
| PHENYL Mercuric Nitrate | PHENYL Mercuric Nitrate | Phenyl mercuric nitrate |
| 14.3 Transport hazard class(es) | ADR/RID | IMDG | IATA |
| 6.1 | 6.1 | 6.1 |
| 14.4 Packaging group | ADR/RID | IMDG | IATA |
| II | II | II |
| 14.5 Environmental hazards | ADR/RID | IMDG Marine pollutant | IATA |
| yes | yes | no |

**15 REGULATORY INFORMATION**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

| 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture | no data available |
| 15.2 Chemical Safety Assessment | no data available |

**16 OTHER INFORMATION**
<table>
<thead>
<tr>
<th>Further information</th>
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<tbody>
<tr>
<td>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. Dr J Pharmachem (India) and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See <a href="http://www.jpharmachem.com">www.jpharmachem.com</a> and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.</td>
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<td>Month of creation :- October 2013</td>
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<td>Month of revision :- October 2016</td>
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