1. Chemical Product and Company Identification

Product Name: ODP-JM
Distributed By: HB Chemical
MSDS Prepared By (w Suppliers Input): HB Chemical
Chemical Name / Family: Bis(4-octylphenyl)amine
Additional identification: Diphenylamine and diisobuylene reaction products
CAS#: 101-67-7
EC#: 202-965-5
Product Use: Used as rubber additives
OSHA Status: Not Hazardous

For emergency health, safety, and environmental information, calls 330-920-8023
For emergency transportation information, in the United States: call CHEMTREC at 800-424-9300

2. Hazard(s) Identification

Classification: The substance is classified as the following according to 67/548EEC and Regulation (EC) No 1272/2008

<table>
<thead>
<tr>
<th>REGULATION (EC) No 1272/2008</th>
<th>Hazard classes/hazard categories</th>
<th>Hazard statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic Chronic 4</td>
<td>H413</td>
<td></td>
</tr>
</tbody>
</table>

For full text of H- phrases: see section 2.2

<table>
<thead>
<tr>
<th>67/548/EEC</th>
<th>Hazards characteristics</th>
<th>R-Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R53</td>
<td></td>
</tr>
</tbody>
</table>

For full text of R- phrases: see section 16

The most important adverse physiochemical effect: Not applicable.
The most important adverse human health effects: Not applicable.
The most important adverse environmental effect: May cause long lasting harmful effect to aquatic life.

Hazard Pictograms: No hazard pictogram is used.
Signal Words: No signal word used.
Hazard Statement: May cause long lasting harmful effects to aquatic life.
Precautionary Statement: Avoid release to the environment. Dispose of contents/container in accordance with local regulation.

Other Hazards: Not available (PBT, vPvB, Substance is an endocrine disrupt or, etc.)

### 3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Registration No.</th>
<th>CAS No.</th>
<th>EC No.</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bis(4-octylphenyl)amine</td>
<td>N/A</td>
<td>101-67-7</td>
<td>202-965-5</td>
<td>88%</td>
</tr>
<tr>
<td>Others</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>12%</td>
</tr>
</tbody>
</table>

### 4. First Aid Measures

**Description of first aid Measures:** In all cases of doubt, or when symptoms persist, seek medical attention.

**Inhalation:** Move victim away from exposure and into fresh air. If symptoms persist, seek medical advice.

**Eyes:** Wash affected eyes for at least 15 minutes under running water with eyelids held open. Seek medical advice if irritation develops.

**Skin:** Remove contaminated clothing. Wash off with soap and water. Get medical advice.

**Ingestion:** Rinse mouth and then drink plenty of water. Never give anything by mouth to an unconscious person. Get medical aid.

**Most important symptoms and effects, both acute and delayed:** The product is not classified as harmful to human health effect.

**Indication of any immediate medical attention and special treatment needed:** If skin irritation or rash occurs, get medical advice/attention.

### 5. Fire-Fighting Measures

**Suitable Extinguishing Media:** Use water spray, Dry Chemical, water mist, foam, dry chemical powder.

**Unsuitable Extinguishing Media:** Water jet.

**Special hazards arising from the substance or mixture:** Combustion products: carbon dioxide, nitrogen oxides.

**Advice for fire-fighters:** Wear self-contained breathing apparatus and chemical-protective clothing.
### 6. Accidental Release Measures

**For non-emergency personnel:**
- Use personal protective equipment. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas. Handle in accordance with good industrial hygiene and safety practice.

**For emergency responders:**
- Wear an appropriate NIOSH/MSHA approved respirator if mist, vapor or dust is generated.

**Environmental Precautions:**
- Do not allow material to be released to the environment without proper governmental permits.

**Methods for containment and cleaning up:**
- Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. Ensure adequate ventilation.

**Additional information:**
- Clear spills immediately.

### 7. Handling and Storage:

**Protective measures:**
- Use personal protective equipment. Avoid contact with skin and eyes. Provide appropriate exhaust ventilation. Wash hands thoroughly after handling.

**Advise on general occupational hygiene:**
- Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

**Conditions for safe storage, including any incompatibilities:**
- Keep container tightly closed in a dry and well-ventilated place. Keep away from incompatible materials.

### 8. Exposure Controls / Personal Protection

**Control Parameters:**

**Occupational exposure limits:**
- Not available.

**Additional exposure limits under the conditions of use:**
- Not available.

**DNEL/DMEL and PNEC-Values:**
- Not available.

**Exposure Controls:**
- Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower. Use adequate ventilation to keep airborne concentration low.

**Respiratory Protection:**
- Wear dust masks if necessary.

**Hand Protection:**
- Handle with gloves.

**Eye/face Protection:**
- Safety glasses with side-shields (frame goggles) (e.g. EN166)
Body Protection: Wear appropriate protective clothing and boots.

Thermal Hazards: Wear suitable protective clothing to prevent heat.

Environmental exposure controls: Avoid discharge into the environment. According to local Regulation, Federal and official regulations.

9. Physical and Chemical Properties

Physical Form: Powder or granule
Color/Odor: Pale White to Brown/Not available.
Melting Point/Range: ≥85°C
Boiling point/Range °C: Not available.
Flash Point °C: Not available.
PH: Not available.
Evaporation rate: Not available.
Flammability (solid, gas): Not available.
Ignition temperature (°C): Not available.
Upper/lower flammability explosive limits: Not available.
Vapor pressure (25°C): Not available.
Vapor density: Not available.
Relative Density (25.2°C): Not available.
Bulk density (kg/m³): Not available.
Water solubility (g/l) at 20°C: Insoluble.
n-Octane/water (log PO/w): Not available.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
Viscosity, dynamic (mPa s): Not available.
Explosive properties: Not available.
Oxidizing Properties: Not available.

Other information:
Fat solubility (solvent-oil to be specified) etc.: Not available.
Surface tension: Not available.
Dissociation constant in water (PKa): Not available.
Oxidation-reduction Potential: Not available.
Molecular Formula: C_{28}H_{43}N
Molecular Weight: 393.65

10. Stability and Reactivity

Reactivity: The substance is stable under normal storage and handling conditions.

Stability: Stable at room temperature in closed containers under normal storage and handling conditions.

Incompatibility (Materials to Avoid): Strong oxidizing agents.

Conditions to Avoid: Incompatible materials. Avoid dust.
Possibility of hazardous reactions: No dangerous reactions known.
Hazardous decomposition products: Carbon monoxide, carbon dioxide, nitrogen oxides.

11. Toxicological Information

Toxicokinetics, metabolism and distribution:
Non-human toxicological data: Not available.

Information on toxicological effects:

Acute toxicity:
- LD50(Oral, Rat): >5000 mg/kg.
- LD50(Dermal, Rat): Not available
- LC50(Inhalation, Rat): Not available

Skin corrosion/irritation: Not classified
Serious eye damage/irritation: Not classified
Respiratory or skin sensitization: Not classified
Germ cell mutagenicity: Not classified
Carcinogenicity: Not classified
Reproductive toxicity: Not classified
STOT- single exposure: Not classified
STOT-repeated exposure: Not classified
Aspiration hazard: Not classified

12. Ecological Information

Toxicity:

<table>
<thead>
<tr>
<th>Acute toxicity</th>
<th>Time</th>
<th>Species</th>
<th>Method</th>
<th>Evaluation</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50</td>
<td>N/A</td>
<td>96h</td>
<td>Fish</td>
<td>OECD 203</td>
<td>N/A</td>
</tr>
<tr>
<td>EC50</td>
<td>N/A</td>
<td>48h</td>
<td>Daphnia</td>
<td>OECD 202</td>
<td>N/A</td>
</tr>
<tr>
<td>EC50</td>
<td>N/A</td>
<td>72h</td>
<td>Algae</td>
<td>OECD 201</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Persistence and degradability: Not available.
Bio accumulative potential: Not available.
Mobility in soil: Not available.
Results of PBT & vPvB assessment: Not available.
Other adverse effects: Do not empty into drains.
13. Disposal Considerations

Waste treatment methods: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Additionally, waste generators must consult state and local hazardous regulations to ensure complete and accurate classification.

Product/packaging disposal: If empty container retains product residue, all label precautions must be observed. Return for reuse or dispose according to national or local regulations.

14. Transport Information

D.O.T. Shipping Name Not regulated
Air - ICAO (international Civil Aviation Organization) Not regulated
Sea - IMDG (International Maritime Dangerous Goods) Not regulated

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture:

Relevant information regarding authorization: Not applicable.
Relevant information regarding restriction: Not applicable.
Other EU regulations: Employment restrictions concerning young person must be observed. For use only by technically qualified individuals.
Other National regulations: Not applicable
Chemical Safety Assessment has been carried out? YES □ NO □ X □

16. Other Information

The above information has been compiled from what we believe to be credible sources. To our knowledge the information is accurate and reliable, however, it is not guaranteed. Any recommendations issued by HB Chemical personnel or literature is derived from experience and by no means should be taken as fact or construed as a recommendation to violate of any law, regulation or patent. It is the users responsibility to determine the suitability of any HB supplied material in their application. The individual conditions of each customer are well outside of our control and we cannot be held liable for its functionality and use. Please contact our office should you need specific information beyond what is supplied above. As with all Chemical usage safety precautions beyond the stated are highly recommended.