



**ALDON CORPORATION**

# MATERIAL SAFETY DATA SHEET

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MSDS No. DD 50  
Effective Date February 22, 1999

## SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

|                          |  |  |          |        |          |      |         |   |   |   |   |   |        |   |      |   |            |   |
|--------------------------|--|--|----------|--------|----------|------|---------|---|---|---|---|---|--------|---|------|---|------------|---|
| <b>Product</b>           | DIPHENYLAMINE                                    |  <p>CHEMTREC<br/>800-424-9300<br/>Day 716-226-6177</p> <p>NFPA<br/>HAZARD RATING</p> <table border="1"> <tr> <td>LEAST</td> <td>SLIGHT</td> <td>MODERATE</td> <td>HIGH</td> <td>EXTREME</td> </tr> <tr> <td>0</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> </table> <p>HMIS *</p> <table border="1"> <tr> <td>Health</td> <td>2</td> </tr> <tr> <td>Fire</td> <td>1</td> </tr> <tr> <td>Reactivity</td> <td>0</td> </tr> </table> | LEAST    | SLIGHT | MODERATE | HIGH | EXTREME | 0 | 1 | 2 | 3 | 4 | Health | 2 | Fire | 1 | Reactivity | 0 |
| LEAST                    | SLIGHT   |  | MODERATE | HIGH   | EXTREME  |      |         |   |   |   |   |   |        |   |      |   |            |   |
| 0                        | 1  |  | 2        | 3      | 4        |      |         |   |   |   |   |   |        |   |      |   |            |   |
| Health                   | 2  |  |          |        |          |      |         |   |   |   |   |   |        |   |      |   |            |   |
| Fire                     | 1  |  |          |        |          |      |         |   |   |   |   |   |        |   |      |   |            |   |
| Reactivity               | 0  |  |          |        |          |      |         |   |   |   |   |   |        |   |      |   |            |   |
| <b>Chemical Synonyms</b> | N-Phenylbenzenamine                              |  |          |        |          |      |         |   |   |   |   |   |        |   |      |   |            |   |
| <b>Formula</b>           | (C <sub>6</sub> H <sub>5</sub> ) <sub>2</sub> NH |  |          |        |          |      |         |   |   |   |   |   |        |   |      |   |            |   |
| <b>Unit Size</b>         | up to 2.5 Kg.                                    |  |          |        |          |      |         |   |   |   |   |   |        |   |      |   |            |   |
| <b>C.A.S. No.</b>        | 122-39-4   |  |          |        |          |      |         |   |   |   |   |   |        |   |      |   |            |   |

## SECTION II INGREDIENTS OF MIXTURES

| Principal Component(s) | %    | TLV Units      |
|------------------------|------|----------------|
| Diphenylamine          | 100% | See Section V. |

**WARNING! HARMFUL IF SWALLOWED, INHALED OR**

**ABSORBED THROUGH SKIN. CAUSES SKIN AND EYE IRRITATION.**

## SECTION III PHYSICAL DATA

|                        |  |   |                    |
|------------------------|--|---|--------------------|
| Melting Point (°F)     | 52.5°C (125°F)   | Specific Gravity (H <sub>2</sub> O = 1) | 1.160 @ 20°C       |
| Boiling Point (°F)     | 302°C (575.6°F)  | Percent Volatile by Volume (%)          | Negligible at 70°F |
| Vapor Pressure (mm Hg) | 1 mm @ 108.3°C   | Evaporation Rate (=1)                   | Data not listed.   |
| Vapor Density (Air=1)  | 5.82   |   |                    |
| Solubility in Water    | Insoluble.   |   |                    |
| Appearance & Odor      | Very pale, tan crystalline flakes which darken on storage; amine odor. |   |                    |

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

|                                  |   |  |       |       |
|----------------------------------|---|--|-------|-------|
| <b>Flash Point (Method Used)</b> | 150°C (302°F) (cc)  | <b>Flammable Limits in Air % by Volume</b> | Lower | Upper |
| <b>Extinguisher Media</b>        | Carbon dioxide (CO <sub>2</sub> ); dry chemical (ABC); water spray; foam. |  |       |       |

### SPECIAL FIREFIGHTING PROCEDURES

Do not use high-pressure water stream. Air-borne dust creates an explosive hazard. Wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing.

Autoignition Temperature: 635°C (1175°F) Fire point.

### UNUSUAL FIRE AND EXPLOSION HAZARDS

Slight fire hazard when exposed to heat or flame. Dangerous when heated to decomposition, it emits highly toxic fumes; can react with oxidizing materials.

D.O.T. **NON-REGULATED.**

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20

## SECTION V HEALTH HAZARD DATA DD 50

**Threshold Limited Value** TWA: 10 mg/m<sup>3</sup> (ACGIH 1992-93). RTECS No. JJ7800000  
Toxicity data: Ori-rat LDLo 3000 mg/kg; LD50 (rats) > 1.5 g/Kg.

**Effects of Overexposure** Target organs affected: Central nervous system, cardiovascular system. May cause irritation to skin, eyes and mucous membranes. Overexposure can cause methemoglobinemia and red blood cell damage. (Aniline-Intoxication may occur from inhalation, ingestion, or cutaneous absorption. Serious poisoning may result from ingestion 0.25 mL.)

**Emergency and First Aid Procedures**

**SKIN:** Flush thoroughly with water, then wash with mild soap and water.  
**INGESTION:** If swallowed, if conscious, give one or two glasses of water to drink. Induce vomiting. Repeat until vomit fluid is clear. Call physician immediately. Never give anything by mouth to an unconscious person.  
**EYES:** Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.  
**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

## SECTION VI REACTIVITY DATA

|                  |                 |   |                            |  |
|------------------|-----------------|---|----------------------------|--|
| <b>Stability</b> | <b>Unstable</b> |   | <b>Conditions to Avoid</b> | Exposure to light, excessive temperature and heat. |
|                  | <b>Stable</b>   | X |                            |  |

**Incompatibility (Materials to Avoid)** Strong oxidizers, acids, alkalis.

**Hazardous Decomposition Products** Thermal decomposition or burning may produce Aniline, carbon dioxide and/or carbon monoxide and oxides of nitrogen (NO<sub>x</sub>).

|                                 |                            |
|---------------------------------|----------------------------|
| <b>Hazardous Polymerization</b> | <b>Conditions to Avoid</b> |
| <b>May Occur</b>                | <b>Will Not Occur</b>      |
|                                 | X                          |

Not applicable.

## SECTION VII SPILL OR LEAK PROCEDURES

**Steps to be taken in case material is released or spilled** Use personal protective equipment and adequate ventilation. Sweep up and place in a suitable container for proper disposal. Wash spill area with soap and water.

**Waste Disposal Method** Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.

Dispose of in an approved incinerator equipped with an afterburner and scrubber or contract with a licensed waste disposal service.

## SECTION VIII SPECIAL PROTECTION INFORMATION

|  |  |                     |                |     |
|--|--|---------------------|----------------|-----|
| <b>Respiration Protection (Specify Type)</b> | Work in laboratory fume hood. If dusty conditions prevail, wear a NIOSH/MSHA-approved dust mask or respirator. |                     |                |     |
| <b>Ventilation</b>                           | <b>Local Exhaust</b>   | <b>Recommended.</b> | <b>Special</b> | No. |
|  | <b>Mechanical (General)</b>  | <b>Recommended.</b> | <b>Other</b>   | No. |

**Protective Gloves** Rubber. **Eye Protection** Chemical safety glasses.

**Other Protective Equipment** Goggles, smock, apron, eye wash station, wash facilities, proper gloves, ventilation hood.

## SECTION IX SPECIAL PRECAUTIONS

**Precautions to be Taken in Handling & Storing** Store in a cool, dry place away from strong oxidizers. Protect from light. Wash thoroughly after handling.  
Keep container tightly closed when not in use.

**Other Precautions** Read label on container before using. Do not wear contact lenses when working with chemicals.  
Avoid contact with eyes, skin and mucous membranes. Do not inhale or ingest. Use with adequate ventilation. Remove and wash contaminated clothing.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

|                       |                     |                                 |                                       |
|-----------------------|---------------------|---------------------------------|---------------------------------------|
| <b>Revision</b> No. 4 | <b>Date</b> 2/22/99 | <b>Approved</b> Michael Raszeja | <b>Chemical Safety Coordinator</b> MR |
|-----------------------|---------------------|---------------------------------|---------------------------------------|

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