IDENTIFICATION

MSDS Record Number: 4630605
Product Name(s): DIPA
2,6-diisopropylaniline
Date of MSDS: 2004-03-01
Currency Note: This MSDS was provided to CCOHS on 2005-06-10

MANUFACTURER/SUPPLIER INFORMATION

Company: ALBEMARLE CORP

MATERIAL SAFETY DATA

18.0.2 ETH 2605 DIPA 03/01/04CN
ALBEMARLE CORPORATION
MATERIAL SAFETY DATA SHEET
451 FLORIDA STREET, BATON ROUGE, LA 70801
FOR EMERGENCIES ONLY - Phone (225) 344-7147
For Non-emergency Health & Safety Phone 1-800-535-3030
Representing Albemarle Foreign Sales Corporation for Export Sales

HMIS CLASSIFICATIONS:
ISSUE DATE: 03/01/04
HEALTH: 1
SUPERSEDES: 02/13/97
FLAMMABILITY: 1
REACTIVITY: 0

PRODUCT IDENTIFICATION

PRODUCT NAME: DIPA
CHEMICAL NAME: 2,6-diisopropylaniline
CAS NO.: 24544-04-5
CHEMICAL FORMULA: (C3H7)2 C6H3NH2

SUMMARY OF HAZARDS
See 'Other Health Effects.'

OSHA HAZARDOUS COMPONENTS

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS NO.</th>
<th>NOTE</th>
<th>EXPOSURE LIMIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,6-diisopropylaniline</td>
<td>24544-04-5</td>
<td>ND</td>
<td>2 ppm TWA8 (OSHA/ACGIH)</td>
</tr>
</tbody>
</table>

NOTE: Carcinogenicity listing of components at concentrations
greater than or equal to 0.1% indicated by: @=NTF; #=IARC; &-OSHA; +-ACGIH; *-OTHER; ND=Not Designated.

CHEMICAL AND PHYSICAL PROPERTIES
APPEARANCE/ODOR: Clear liquid/faint pleasant odor.
BOILING POINT: 257°C/496°F.
VAPOR PRESSURE: <0.01 mm Hg @ 20°C/68°F.

EMERGENCY PHONE NUMBER  PRODUCT NAME: DIPA
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CHEMICAL AND PHYSICAL PROPERTIES (Con't)
SOLUBILITY IN WATER: <0.02 wt. % @ 25°C/77°F.
SPECIFIC GRAVITY: 0.94

FIRE AND EXPLOSION HAZARDS
FLASH POINT(METHOD): 117°C/243°F (PMCC).
FLAMMABLE LIMITS: Not established.
EXTINGUISHING MEDIA: Dry chemical, water spray (fog), foam
or carbon dioxide.
HAZARDOUS THERMAL DECOMPOSITION PRODUCTS: Include oxides of
carbon and nitrogen.
SPECIAL FIRE FIGHTING PROCEDURES: Avoid breathing smoke and
vapor.
UNUSUAL FIRE AND EXPLOSION HAZARDS: None known.

REACTIVITY DATA
STABILITY: Stable.
CONDITIONS TO AVOID: Extremely high temperature.
MATERIALS TO AVOID: Strong oxidizing agents, acids, acid
chlorides and anhydrides, chloroformates, light and air
sensitive materials.
HAZARDOUS POLYMERIZATION: Will not occur.

HEALTH HAZARDS
INHALATION: Not expected to be a primary route of exposure.
EYE CONTACT: Not expected to be an eye irritant.
SKIN CONTACT: Not expected to be a skin irritant.
INGESTION: Not expected to be acutely toxic. See "OTHER
03/01/04

EMERGENCY PHONE NUMBER  PRODUCT NAME: DIPA
(225) 344-7147

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HEALTH HAZARDS (Con't)
HEALTH EFFECTS'.
CHRONIC EFFECTS OF OVEREXPOSURE: None known.
OTHER HEALTH EFFECTS: Overexposure to alkylated anilines may
result in methemoglobinemia. Symptoms of
methemoglobinemia include weakness and decrease in
respiratory rate. Coma and gradual respiratory failure
may occur in extreme cases. Cyanosis may occur (lips
and fingernails turn blue).
TOXICITY DATA: ORAL LD50 = 3,350 mg/kg. DERMAL LD50 =
10,300 mg/kg.

EMERGENCY FIRST AID PROCEDURES
INHALATION: Remove to fresh air. If not breathing, give
artificial respiration, preferably mouth-to-mouth. If
breathing is difficult, give oxygen. Get medical
attention.
EYE CONTACT: Begin immediate eye irrigation with cool water.
SKIN CONTACT: Wash contaminated areas with soap and water.
Wash clothing before reuse.

INGESTION: Induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. Get medical attention.

EXPOSURE CONTROL INFORMATION

EXPOSURE LIMITS: Not established by OSHA/ACGIH.

EYE PROTECTION: Chemical goggles and a face shield.

PROTECTIVE GLOVES: Resistant to chemical penetration.

RESPIRATORY PROTECTION: NIOSH approved organic vapor respirator.

LOCAL EXHAUST VENTILATION: At source of vapor.

03/01/04

EMERGENCY PHONE NUMBER    PRODUCT NAME: DIPA
(225) 344-7147

18.0.2

EXPOSURE CONTROL INFORMATION (Con't)

MECHANICAL VENTILATION: Recommended.

OTHER: If skin contact or contamination of clothing is likely, protective clothing should be worn.

ENVIRONMENTAL PROTECTION

SPILLS OR LEAKS: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Take up small spills with dry chemical absorbent. Large spills may be taken up with pump or vacuum and finished off with dry chemical absorbent. May require excavation of contaminated soil.

DISPOSAL METHODS: To the best of Albemarle's knowledge, this product is not regulated by CERCLA/RCRA as a hazardous waste or material. However, this product has not been tested for the toxicity characteristic via the Toxicity Characteristic Leaching Procedure. Therefore, it may be disposed of as an industrial waste in a manner acceptable to good waste management practice and in compliance with applicable local, state and federal regulations.

STORAGE REQUIREMENTS: No special storage required.

REGULATORY INFORMATION

TSCA:

THIS MATERIAL IS IN COMPLIANCE WITH THE TOXIC SUBSTANCES CONTROL ACT (15 USC 2601 - 2629).

03/01/04

EMERGENCY PHONE NUMBER    PRODUCT NAME: DIPA
(225) 344-7147

18.0.2

REGULATORY INFORMATION (Con't)

DOT DESCRIPTION/PROPER SHIPPING NAME:
Not regulated for transportation.

DOT HAZARD CLASS: NR

DOT ID NUMBER: NA

HAZARD CATEGORIES FOR SARA 311/312 REPORTING ARE INDICATED BELOW:

HEALTH Immediate (Acute)   No
HEALTH Delayed (Chronic) Yes
PHYSICAL Fire    No
PHYSICAL Sudden Release of Pressure No
PHYSICAL Reactive No
PHYSICAL Nuisance Mist/Dust Only No
EMERGENCY PHONE NUMBER: (225) 344-7147

PRODUCT NAME: DIPA

MSDS prepared by: Health & Environment Department
Albemarle Corporation

FOR ADDITIONAL NONEMERGENCY PRODUCT INFORMATION, CONTACT:

HEALTH AND ENVIRONMENT DEPARTMENT
ALBEMARLE CORPORATION
451 FLORIDA ST.
BATON ROUGE, LA. 70801
(800) 535-3030

THIS MATERIAL SAFETY DATA SHEET CONTAINS AT LEAST
THE INFORMATION REQUIRED BY THE FEDERAL OSHA HAZARD
COMMUNICATION RULE, 29 CFR 1910.1200(g) (2).

THE RESPONSIBILITY TO PROVIDE A SAFE WORKPLACE REMAINS WITH
USER. THE USER SHOULD CONSIDER THE HEALTH HAZARDS AND SAFETY
INFORMATION CONTAINED HEREIN AS A GUIDE AND SHOULD TAKE
THOSE PRECAUTIONS REQUIRED IN AN INDIVIDUAL OPERATION TO
INSTRUCT EMPLOYEES AND TO DEVELOP WORK PRACTICE PROCEDURES
FOR A SAFE WORK ENVIRONMENT.

THE INFORMATION CONTAINED HEREIN IS, TO THE BEST OF OUR
KNOWLEDGE AND BELIEF, ACCURATE. HOWEVER, BECAUSE THE
CONDITIONS OF HANDLING AND USE ARE BEYOND OUR CONTROL, WE
MAKE NO GUARANTEE OF RESULTS, AND ASSUME NO LIABILITY FOR
DAMAGES INCURRED BY THE USE OF THIS MATERIAL. IT IS THE
RESPONSIBILITY OF THE USER TO COMPLY WITH ALL FEDERAL,
STATE, AND LOCAL LAWS AND REGULATIONS.

October, 2007 Issue

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www.ccohs.ca  E-mail: clientservice@ccohs.ca  Fax: (905) 572-2206  Phone: (905) 572-2981
Mail: 135 Hunter Street East, Hamilton Ontario L8N 1M5
**SECTION I**

**NAME**
- 2,6-DI-TERT-BUTYL-4-METHYLPHENOL
- Butylated Hydroxytoluene, BHT

**Formula**
- C_{16}H_{20}O

**CAS No.**
- 128-37-0

**SECTION II**

**DANGEROUS INGREDIENTS**

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>TLV Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,6-Di-Tert-Butyl-4-Methylphenol</td>
<td>100%</td>
<td>PEL: 10 mg/m³</td>
</tr>
</tbody>
</table>

**CAUTION!**

**SECTION III**

**PHYSICAL DATA**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting Point (°C)</td>
<td>69.44°C</td>
</tr>
<tr>
<td>Boiling Point (°C)</td>
<td>265°C</td>
</tr>
<tr>
<td>Vapor Pressure (mm Hg)</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Density (Air=1)</td>
<td>7.6</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Appearance &amp; Odor</td>
<td>White granular; faint odor.</td>
</tr>
</tbody>
</table>

**SECTION IV**

**FIRE AND EXPLOSION HAZARD DATA**

<table>
<thead>
<tr>
<th>Flash point</th>
<th>Fire Extinguishing Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 126.87°C</td>
<td>Use dry chemical, CO₂, alcohol foam, or water spray. In fire conditions, fire-fighters should wear an appropriate mask or a self-containing breathing apparatus.</td>
</tr>
</tbody>
</table>

**Flammability and Explosion Hazards**

May catch fire in contact with oxidizing materials.

**TDG**
- Not controlled under TDG.

**SECTION V**

**REACTIVITY DATA**

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Yes</th>
<th>Stability</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incompatible with Other products</td>
<td>Yes</td>
<td>Reactives under what conditions?</td>
<td>Oxidizing agents, strong acids.</td>
</tr>
</tbody>
</table>

**Hazardous Decomposition Products**
- Carbon oxides.

**SECTION VI**

**TOXICOLOGICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Route of Entry</th>
<th>TLV</th>
<th>Toxicity for animals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingestion, Inhalation</td>
<td>10 mg/m³</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Chronic effects on humans**
- Repeated or prolonged exposure to the substance can produce target organ damage. Target organs: None known.

**Acute effects on humans**
- May be harmful if inhaled, swallowed. May cause irritation of the skin and eyes.

**SECTION VII**

**PREVENTIVE MEASURES**

<table>
<thead>
<tr>
<th>Waste Disposal</th>
<th>Storage</th>
<th>Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharge, treatment, or disposal may be subject to local laws. Consult your local or regional authorities.</td>
<td>Keep container in a cool, well ventilated place. Keep away from heat. Keep away from incompatible materials.</td>
<td>Avoid contact with skin and eyes. Do not breathe dust. Use with adequate ventilation. Do not ingest.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spill or leak</th>
<th>Protective Clothing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use appropriate tools to put the spilled solid in a convenient waste disposal container. Wash spill area with soap and water.</td>
<td>Gloves, safety glasses, lab coat, dust respirator.</td>
</tr>
</tbody>
</table>

**SECTION VIII**

**FIRST AID MEASURES**

<table>
<thead>
<tr>
<th>Ingestion</th>
<th>Eye contact</th>
<th>Skin contact</th>
<th>Spill or leak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call physician or Poison Control Center immediately. Induce vomiting only if advised by the appropriate medical personnel.</td>
<td>Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek medical attention.</td>
<td>Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Inhalation: Move victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Allow victim to rest in a well ventilated area. Seek immediate medical attention.</td>
<td></td>
</tr>
</tbody>
</table>

**SECTION IX**

**PREPARATION OF THE MSDS**

<table>
<thead>
<tr>
<th>Rev. No.</th>
<th>Date</th>
<th>Approved by</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>October 1, 2002</td>
<td>Michael Raszejra</td>
</tr>
</tbody>
</table>