MSDS Number: **D7728** * * * * * *Effective Date:* ***09/01/09*** * * * * *
Supercedes: ***02/26/07***

MSDS Material Safety Data Sheet

From: Mallinckrodt Baker, Inc.
222 Red School Lane
Phillipsburg, NJ 08865

Mallinckrodt CHEMICALS | J.T.Baker

24 Hour Emergency Telephone: 908-859-2151
CHEMTREC: 1-800-424-9300

National Response in Canada
CANUTEC: 613-996-6666

Outside U.S. and Canada
Chemtrec: 703-527-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

DIPHENYLAMINE

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1. Product Identification

Synonyms: N-phenylaniline; anilinobenzene; benzenamine,N-phenyl-;
CAS No.: 122-39-4
Molecular Weight: 169.24
Chemical Formula: (C6H5)2 NH
Product Codes:
J.T. Baker: 1944
Mallinckrodt: 4938

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2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Diphenylamine	122-39-4	100%	Yes

3. Hazards Identification

Emergency Overview

WARNING! HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. AFFECTS THE BLOOD. MAY CAUSE METHEMOGLOBINEMIA.

SAF-T-DATA$^{(tm)}$ Ratings (Provided here for your convenience)

Health Rating: 2 - Moderate (Life)
Flammability Rating: 1 - Slight
Reactivity Rating: 1 - Slight
Contact Rating: 2 - Moderate (Life)
Lab Protective Equip: GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES
Storage Color Code: Green (General Storage)

Potential Health Effects

Inhalation:
May cause irritation to the mucous membranes. Inhalation of dust may cause systemic poisoning, symptoms may parallel those from ingestion exposure. May cause methemoglobinemia.
Ingestion:
May cause anoxia, headache, fatigue, anorexia, cyanosis, vomiting, diarrhea, emaciation, hypothermia, bladder irritation, kidney, heart, and liver damage. May cause methemoglobinemia.
Skin Contact:
May cause skin irritation. Liquid material may be absorbed through the skin. Symptoms may parallel those from ingestion exposure. May cause methemoglobinemia.
Eye Contact:
May cause irritation, redness, pain, and corneal damage.
Chronic Exposure:

Prolonged or repeated exposure from inhalation or skin absorption of liquid may cause damage to the nervous system, liver, kidneys, and bone marrow. May also cause weight loss, anemia, weakness, and irritability.

Aggravation of Pre-existing Conditions:

No information found.

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4. First Aid Measures

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion:

Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Call a physician immediately.

Skin Contact:

Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

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5. Fire Fighting Measures

Fire:

Flash point: 150C (302F)

Autoignition temperature: 634C (1173F)

May pose a slight fire hazard when exposed to heat or flame.

Explosion:

Contact with hexachloromelamine or trichloromelamine may cause an explosive reaction.

Fire Extinguishing Media:

Water spray, dry chemical, alcohol foam, or carbon dioxide. Water stream or foam may cause frothing.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Pick up and place in a suitable container for reclamation or disposal, using a method that does not generate dust.

7. Handling and Storage

Protect against physical damage. Outside or detached storage is preferred. Inside storage should be in a standard flammable liquids storage room or cabinet. Separate from oxidizing materials. Storage and use areas should be No Smoking areas. Protect from light. Isolate from incompatible substances. Can be stored in containers for extended periods when temperature is below 65C. Prolonged storage above this point accelerates discoloration.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:
-ACGIH Threshold Limit Value (TLV): 10 mg/m3 (TWA)
Ventilation System:
A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.
Personal Respirators (NIOSH Approved):
If the exposure limit is exceeded and engineering controls are not feasible, a half facepiece particulate respirator (NIOSH type N95 or better filters) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest.. A full-face piece particulate respirator (NIOSH type N100 filters) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter.

For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. An OV/particluate (NIOSH type N95 filter or better) respirator may be preferable when odor is a problem.

Skin Protection:

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection:

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

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9. Physical and Chemical Properties

Appearance:

White to yellow crystals.

Odor:

Floral odor.

Solubility:

Negligible.

Density:

1.16

pH:

No information found.

% Volatiles by volume @ 21C (70F):

0

Boiling Point:

302C (576F)

Melting Point:

52C (126F)

Vapor Density (Air=1):

5.82

Vapor Pressure (mm Hg):

1 @ 108C (226F)

Evaporation Rate (BuAc=1):

No information found.

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10. Stability and Reactivity

Stability:
Stable under ordinary conditions of use and storage. Discolors on exposure to light.
Hazardous Decomposition Products:
Burning may produce carbon monoxide, carbon dioxide, nitrogen oxides.
Hazardous Polymerization:
Will not occur.
Incompatibilities:
Hexachloromelamine, trichloromelamine, and oxidizing agents.
Conditions to Avoid:
Light and heat.

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11. Toxicological Information

Oral rat LD50: 2000 mg/kg; investigated as a mutagen and reproductive effector.

--------\Cancer Lists\----------

Ingredient	---NTP Carcinogen--- Known	Anticipated	IARC Category
Diphenylamine (122-39-4)	No	No	None

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12. Ecological Information

Environmental Fate:
Theoretical oxygen demand (THOD) is 2.39. Chemical ox. in a 0.05N K2Cr2O7 solution is 90% of THOD. Chemical demand in a 0.01N KMnO4 solution is 88% of THOD.
Environmental Toxicity:
No information found.

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13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal

regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

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14. Transport Information

Not regulated.

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15. Regulatory Information

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  --------\Chemical Inventory Status - Part 1\--------------------------------
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  Ingredient                                        TSCA  EC   Japan
Australia
  ------------------------------------------------  ----  ---  -----  --------
-
  Diphenylamine (122-39-4)                           Yes  Yes   Yes      Yes

  --------\Chemical Inventory Status - Part 2\--------------------------------
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                                                                 --Canada--
  Ingredient                                        Korea  DSL   NDSL  Phil.
  ------------------------------------------------  -----  ---   ----  -----
  Diphenylamine (122-39-4)                           Yes   Yes   No     Yes

  --------\Federal, State & International Regulations - Part 1\--------------
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                                           -SARA 302-    ------SARA 313----
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  Ingredient                               RQ    TPQ     List  Chemical
Catg.
  ---------------------------------------  ---   -----   ----  ------------
--
  Diphenylamine (122-39-4)                 No    No      Yes        No

  --------\Federal, State & International Regulations - Part 2\--------------
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                                                        -RCRA-    -TSCA-
  Ingredient                               CERCLA     261.33     8(d)
  ---------------------------------------  ------     ------    ------
  Diphenylamine (122-39-4)                 No         No         Yes


Chemical Weapons Convention:  No     TSCA 12(b):  Yes    CDTA:  No
SARA 311/312:  Acute: Yes      Chronic: Yes  Fire: No  Pressure: No
Reactivity: No          (Pure / Solid)
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Australian Hazchem Code: None allocated.

Poison Schedule: None allocated.
WHMIS:
This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

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16. Other Information

NFPA Ratings: Health: **3** Flammability: **1** Reactivity: **0**
Label Hazard Warning:
WARNING! HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. AFFECTS THE BLOOD. MAY CAUSE METHEMOGLOBINEMIA.
Label Precautions:
Avoid breathing dust.
Keep container closed.
Use with adequate ventilation.
Wash thoroughly after handling.
Avoid contact with eyes, skin and clothing.
Keep away from heat and flame.
Label First Aid:
If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. In all cases call a physician.
Product Use:
Laboratory Reagent.
Revision Information:
No Changes.
Disclaimer:
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