Biochemical Diagnostics, Inc.

SAFETY DATA SHEET (SDS)

Dinitrobenzene

01. Product and Company Identification

Product Identifier:

Trade Name: m-Dinitrobenzene
Chemical Name: m-Dinitrobenzene, 1,3-Dinitrobenzene
Catalog Number: 35062505
Part of Kits: 35061011, 35060952, 35061118
Use of chemical: Laboratory chemical

Identification of Manufacturer:

Manufacturer/Supplier: Biochemical Diagnostics, Inc.
180 Heartland Blvd., Edgewood, NY 11717
Phone: (631) 595-9200 | Fax: (631) 595-9204
Emergency telephone number: (800) 255-3924

02. Hazard(s) Identification

Classification of substance or mixture:

Acute toxicity, Oral (Category 3)
Toxic if swallowed
Acute toxicity, Inhalation (Category 1)
Fatal if inhaled
Acute toxicity, Dermal (Category 1)
Fatal in contact with skin
Acute aquatic toxicity (Category 1)
Chronic aquatic toxicity (Category 1)

Label elements:

Hazard pictograms

Toxic

Environmental Hazard

Signal word: Danger

Hazard statements:

H301 Toxic if swallowed.
H310+H330 Fatal in contact with skin or if inhaled.
H410 Very toxic to aquatic life with long lasting effects.

***Precautionary statements*:**

P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P264 Wash skin thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection
P284 Wear respiratory protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or physician.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing
P302+P350 IF ON SKIN: Gently wash with plenty of soap and water.
P501 Dispose of contents/ container to an approved waste disposal plant.

***Classification system*:**

NFPA ratings (scale 0 - 4)

Health = 3
Fire = 1
Reactivity = 0

HMIS-ratings (scale 0 - 4)

Health = 3
Fire = 1
Reactivity = 0

03. Composition/information on ingredients

Chemical Characterization: Substance	
CAS No. Description	**:** 99-65-0
Formula	**:** $C_6H_4N_2O_4$
Molecular weight	**:** 168.11 g/mol

04. First aid measures

Description of first aid measures:

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. May be fatal if inhaled. Consult a physician.

Ingestion: Rinse mouth with water. Seek medical attention.

Skin Contact: Remove contaminated clothing. Wash immediately with soap and water. Seek immediate medical attention. May be fatal if absorbed through skin.

Eye Contact: Rinse with thoroughly with plenty of water for at least 15 minutes. Seek medical attention.

05. Firefighting measures

Extinguishing media: Water spray, dry chemical, alcohol-resistant foam, or carbon dioxide.

***Special Fire Fighting Procedures*:** Wear proper protective equipment w/Self contained breathing apparatus.

***Unusual Fire and Explosion Hazards*:** None identified.

06. Accidental release measures

Personal precautions, protective equipment and emergency procedures:
Wear protective equipment. Avoid breathing vapors, mist or gas. Keep unprotected persons away. Ensure adequate ventilation.

***Environmental precautions*:**
Prevent further leakage if safe to do. Do not allow to enter sewers/surface or ground water. Toxic to aquatic organisms.

Methods and material for containment and cleaning up:
Pick up and arrange disposal without creating dust. Sweep up and shove. Keep in closed containers for disposal.

***Waste Disposal Method*:**
Dispose in accordance with state, local and federal regulations

07. Handling and storage

Handling:

Precautions for safe handling: Avoid contact with skin and eyes. Avoid formation of dust.

Conditions for safe storage, including any incompatibilities:

Requirements to be met by storerooms and receptacles: Store in a well-ventilated place.

Further information about storage conditions: Keep container tightly sealed.
Store in dry and well-ventilated place in well-sealed receptacles.

08. Exposure controls/ personal protection

Exposure Controls:

Control parameters:
Components with limit values that require monitoring at the workplace:
64-19-7 Acetic Acid
PEL Long-term value: 1 mg/m³
REL Long-term value: 1 mg/m³ TWA
TLV Short-term value: 1 mg/m³, 0.15 ppm TWA

Personal protective equipment:

General protective and hygienic measures: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

Eye Protection:  Tightly sealed safety glasses or face shield.

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

Protection of Hands:  Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Dispose of gloves after use.

Respiratory Protection: Use NIOSH approved and tested full-face respirator that is independent of circulating air.

Ventilation: Keep vapor levels as low as possible, use adequate general or local exhaust.

09. Physical and chemical properties

Appearance:
Form: Solid, Fine crystals
Color: Yellow

Odor: no data available

pH: no data available

Melting Point: 88-90°C (190-194°F)
Boiling Point: 291°C/ 556°F

Flash Point: 150°C (302 °F)

Ignition temperature: no data available

Explosion limits: **Lower:** no data available
Upper: no data available

Vapor Pressure @ 20ºC: no data available
Specific Gravity @ 20ºC (68ºF): 1.368 g/cm^3 **Vapor Density:** no data available
Percent Volatile: no data available
Evaporation Rate: no data available
Flammable Limits in air % by volume: **Lel**: no data available **Uel:** no data available
Solubility in/ Miscibility with Water@20ºC: 200 mg/L

10. Stability and reactivity

Stability: Stable under normal storage conditions, may be shock sensitive.

Incompatibility: Oxidizing agents, Reducing agents, Strong bases.

Conditions to Avoid: Heat, sparks, open flame. Exposure to sunlight.

Hazardous Polymerization: Data not available

Hazardous Decomposition: Thermal decomposition may produce carbon monoxide, carbon dioxide, and nitrogen oxides.

11. Toxicological information

***Acute toxicity*:**

LD/LC50 values that are relevant for classification:

Oral: LD50 59.5 mg/kg (rat)

Remarks: Behavioral: Somnolence (depressed activity). Lungs, Thorax, or Respiration: Dyspnea. Skin and Appendages: Other: Hair.

Inhalation: no data available

Dermal: LD50 1900 mg/kg (rabbit)

***Potential health effects*:**

On the skin: May be fatal if absorbed through skin. May cause skin irritation.

On the eye: May cause eye irritation.

Inhalation: May be fatal if inhaled. May cause respiratory tract irritation.

Ingestion: Toxic if swallowed.

Signs and Symptoms of Exposure: Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer. Symptoms include Burning sensation, Cough, Shortness of breath, Headache, Laryngitis, Nausea, Vomiting.

12. Ecological information

Toxicity: No data available.

Persistence and degradability: No data available.

Bioaccumulative potential: No data available.

Mobility in soil: No data available.

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

13. Disposal considerations

Waste treatment methods

Product:

Dispose of in accordance with local, state and federal regulations.

Contaminated packaging:

Disposal must be made according to official regulations.

14. Transport Information

UN Number:

3443

UN proper shipping name:

Dinitrobenzenes, solid

Transport hazard class(es):

6.1

Packing group:

II

Environmental hazards:

Marine pollutant

Special precautions

None

15. Regulatory Information

SARA 302 Components:

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components:

The following components are subject to reporting levels established by SARA Title III, Section 313:

1,3-Dinitrobenzene CAS-No. 99-65-0 Revision Date 2007-07-01

SARA 311/312 Hazards:

Acute Health Hazard, Chronic Health Hazard

16. Other Information

Revision B, June 2015