

Product Name: Benomyl
Product Number: B152
Formula: C₁₄H₁₈N₄O₃

Page Number: 1 of 5
NIOSH/RTECS Number: DD6475000
CAS Number: 17804-35-2

MATERIAL SAFETY DATA SHEET

1. PHYSICAL & CHEMICAL POPERTIES

Product Description:	Benomyl	Formula:	C ₁₄ H ₁₈ N ₄ O ₃
Product Number:	B152	CAS Number:	17804-35-2
NIOSH/RTECS No:	DD6475000	Vapor Density:	NA
Storage Temperature:	2-6 C	Melting Point:	>300 C
pH:	NA	Specific Gravity:	NA
Molecular Weight:	290.3	Solubility:	Soluble in water
Appearance:	White to off-white powder	Odor:	Odorless

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS No.	Percent	Hazardous
Benomyl	17804-35-2	100%	Yes ACGIH TLV: 10 mg/m ³ OSHA PEL: 15 mg/m ³

3. HAZARDS IDENTIFICATION

Label Hazards Warnings:

MAY BE HARMFUL IF SWALLOWED OR INHALED. POSSIBLE RISK TO UNBORN CHILD. POSSIBLE RISK OF IMPAIRED FERTILITY. MAY CAUSE SENSITIZATION. POSSIBLE MUTAGEN.

Label Precautionary Statements:

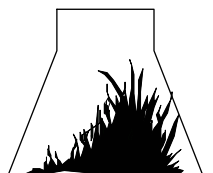
CAUSES IRRITATION. DURING USE AVOID BREATHING DUST. USE WITH ADEQUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING. WHEN NOT IN USE KEEP IN TIGHTLY CLOSED CONTAINER.

Decomposition Products: Carbon monoxide, carbon dioxide, nitrogen oxides

Laboratory Protective Equipment: Lab coat, protective gloves, safety goggles

HMIS Rating:

Health	Flammability	Reactivity	Personal Protection Equipment
NA	NA	NA	NA



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NFPA 704M Rating:

Health	Flammability	Reactivity	Special Hazards
NA	NA	NA	NA

4. POTENTIAL HEALTH HAZARDS/TOXICOLOGICAL INFORMATION

Toxicity: LD₅₀ (Oral-Rat)(mg/Kg) 10000
LD₅₀ (Skin-Rat)(mg/Kg) 1000
LD₅₀ (Skin-Rabbit)(mg/Kg) >10000

Carcinogenicity: NTP: No
IARC: No
Z List: No
OSHA Reg: No

Effects of Overexposure: Irritation, sensitization, reproductive effects

Target Organs: Reproductive system, liver

Medical Conditions Aggravated By Exposure: Pregnancy

Routes Of Entry: Inhalation, Ingestion, Skin and Eye Contact

The Toxicological Properties of This Product Have Not Been Thoroughly Investigated

5. EMERGENCY AND FIRST AID PROCEDURES:

Route of Entry	Symptoms	First Aid Procedures
Ingestion	May cause irritation if swallowed.	If swallowed, wash out mouth with water. Never give anything by mouth to an unconscious person. Get medical attention.
Inhalation	May cause irritation to respiratory tract.	Safely remove victim to fresh air. If not breathing, institute cardiopulmonary resuscitation (CPR). If breathing is difficult, ensure clear airway and give oxygen. Get medical attention
Eye Contact	Direct contact may cause irritation. May cause redness,	Flush immediately with large amounts of water for at least 15



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tearing or blurred vision.

minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. **Get medical attention if irritation persists.**

Skin Contact

Irritating. May cause reddening, itching or inflammation.

Wash area thoroughly with soap and water. Get medical attention if irritation develops or persists. Remove and wash contaminated clothing.

6. FIRE HAZARDS & FIREFIGHTING MEASURES

Flash Point (Closed Cup): N/A

Flammable Limits: Upper - N/A % Lower - N/A %

Fire Extinguishing Media: Water Spray, Carbon Dioxide, Dry Chemical Powder or Appropriate Foam. Use Extinguishing Media Appropriate for Surrounding Fire.

Special Fire-Fighting Procedures: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus. Evacuate the area and fight fire from a safe distance.

Unusual Fire & Explosion Hazards: May emit toxic fumes under fire conditions

Toxic Gases Produced: Carbon monoxide, carbon dioxide, nitrogen oxides

7. REACTIVITY & CONDITIONS TO AVOID

Stability: Stable under normal conditions of use

Hazardous Polymerization: Will Not Occur

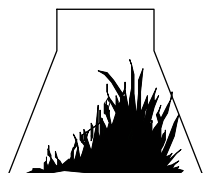
Conditions To Avoid: Heat, incompatibles

Incompatibles: Strong oxidizing agents

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, nitrogen oxides

8. SPECIAL PRECAUTIONS/PROTECTIVE EQUIPMENT

Ventilation: Ventilation hood.



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Respiratory Protection: A NIOSH/MSHA approved air purifying respirator is recommended where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited..

Eye/Skin Protection: Have eye-washing facilities readily available where eye contact can occur. Wear chemical safety goggles. Use appropriate chemical protective gloves when handling. Showering and changing into street clothes after work is recommended.

9. SPILLS & LEAKS

Spill Or Discharge: Wear suitable protective clothing and a self-contained breathing apparatus if available. Carefully sweep up and remove. Place material in a dry container and cover. Remove from the area. Flush spill area with water.

Disposal Procedure: Dispose In Accordance With All Applicable Federal, State, And Local Environmental Regulations.

EPA Hazardous Waste Number: NA

10. STORAGE AND HANDLING PRECAUTIONS

Storage Temperature: 0-5 C

Special Precautions: Store in a tightly sealed container in a cool, dry place. Do not breathe dust. Wash thoroughly after handling.

11. TRANSPORTATION DATA

Domestic (D.O.T.): Proper Shipping Name: CHEMICALS, N.O.S. (NON-REGULATED)
Hazard Class: NA
UN/NA: NA
Labels: NA

International (I.M.O.): Proper Shipping Name: CHEMICALS, N.O.S (NON-REGULATED)
Hazard Class: NA
UN/NA: NA
Labels: NA



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12. REGULATORY INFORMATION

U.S. FEDERAL REGULATORY INFORMATION

TSCA: Yes

SARA TITLE III

Section 302 (EHS) Ingredients: No
Section 313 Ingredients: No
Section 304 (EHS/CERCLA) Ingredients: No

SARA TITLE III NOTIFICATION INFORMATION

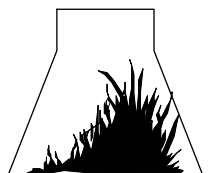
Acute Health Hazard: Yes
Chronic Health Hazard: Yes
Fire Hazard: No
Sudden Release of Pressure Hazard: No

INTERNATIONAL REGULATORY INFORMATION:

Risk Phrases: 22 – Harmful if swallowed
36/37/38 – Irritating to eyes, respiratory system, and skin
40 – Limited evidence of carcinogenic effect

Safety Phrases: 22 – Do not breathe dust.
24/25 – Avoid contact with skin and eyes
36/37/39 – Wear suitable protective clothing, gloves, and eye/face protection.

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