

MERCK HUMAN HEALTH DIVISION, U.S. HUMAN HEALTH  
A Division of Merck and Co., Inc.; P.O. Box 4, West Point, PA 19486

## \*\*\*\*\* MATERIAL SAFETY DATA SHEET \*\*\*\*\*

LABEL NAME: Cogentin (Injection)

MHHD-005

Emergency Telephone - Professional Information on MHHD-U.S. Marketed Products  
Number (215) 652-7300

## SECTION 1 - MATERIAL IDENTIFICATION . . . . .

Chemical Name----- 3-(Diphenyl methoxy)-8-methyl-8-azacyclo  
[3.2.1] octane methane sulfonate

Synonyms (Common)----- Congenitol, Tropine benzohydril ether  
methane sulfonate  
(Chemical)----- Benztropine mesylate

Material Statistical Number--- Not applicable

Material Product Number----- Not applicable

Chemical Classification----- Pharmaceutical

Intended Use----- Anticholinergic management of parkinsonism  
and antihistaminic effects.

## SECTION 2 - PRINCIPAL HAZARDOUS COMPONENT(S) . . . . .

Component	Molecular Formula	Molecular Weight	CAS Number	Percent (%)
Benztropine mesylate	C21H25NO	403.54	132-17-2	1 mg/ml

## SECTION 3 - PHYSICAL PROPERTY DATA . . . . .

Appearance----- Clear, colorless aqueous solution

Odor/Threshold Level (ppm)----- Not applicable

Boiling Point (oC/oF)----- Not applicable

Freezing Point (oC/oF)----- Not applicable

Melting Range (oC/oF)----- Complex mixture

pH ----- 6.0

Solubility in water----- Freely soluble

Specific Gravity (Water = 1)--- Not applicable

Vapor Density (Air=1)----- Not applicable

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Vapor Pressure (mm Hg @ oC/oF)- Not applicable

Volatile Components (% w/w)--- None

SECTION 4 - FIRE AND EXPLOSION HAZARD DATA . . . . .

Flash Point (oC/oF)----- Not applicable

Flash Point Test Method----- Not applicable

Autoignition Temperature (oC/oF)- Not applicable

Flammable Limits -LEL (%)----- Not applicable

-UEL (%)----- Not applicable

Combustibility Information---- Not applicable

Dust Explosivity Information-- Not available

Shock Sensitivity Information- Not available

Extinguishing Media----- Small fires: Not available  
Large fires: Not available

Special Fire Fighting Procedures- None

Fire/Explosion Hazards----- None known

Hazardous Decomposition Products Resulting From A Fire- None known

SECTION 5 - REACTIVITY DATA . . . . .

Stability (Normal Storage Conditions)-- Not available

Storage Conditions to Avoid--- Not available

Thermal Stability/Instability Information- None known

Incompatibilities (Chemical Entities)- None known

Incompatibilities (Materials of Construction)- None known

Hazardous Polymerizations---- None known

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PAGE 3 of 6

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SECTION 6 - EMERGENCY AND FIRST AID PROCEDURES . . . . .

Eye Contact----- Flush with water; get medical attention if  
symptoms appear.

Skin Contact----- Wash with water.

Inhalation----- Get to fresh air. Get medical attention  
if symptoms appear.

Ingestion----- Induce vomiting or perform gastric lavage  
if a significant quantity has been  
ingested. These are not recommended in  
precomatose, convulsive, or psychotic  
status. Maintain airway.

Notes to Physician----- Physistigmine salicylate (1-2mg)  
subcutaneously or intravenously has been  
shown to reverse CNS symptoms of  
anticholinergic intoxication.

SECTION 7 - HEALTH HAZARD DATA . . . . .

Component	OSHA Permissible Exposure Limit (PEL)	ACGIH-1993-94 Threshold Limit Value (TLV)	Merck Exposure Control Limit (ECL)
Benztropine mesylate	Not established	Not established	0.01mg/M3

Carcinogen Designation----- Not listed with IARC, NTP, or OSHA

Effects of Acute Exposure

Eye Contact----- Not established

Skin Contact----- Not established but manufacturing  
experience has shown that the compound is  
non irritating to the skin.

Inhalation----- Not established but is not considered a  
potential route of exposure.

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PAGE 4 of 6

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Ingestion----- Manifestations of overdosage similar to  
atropine poisoning or antihistamine

overdosage, e.g., CNS depression, hallucinations, anhidrosis, tachycardia, blurred vision, skin rash, hyperthermia, toxic psychosis.

Effects of Chronic Exposure----- Safe use in pregnancy has not been established. Rats tolerated up to 5 mg/kg/day in the diet for 172 days without evidence of effect. Dogs tolerated 0.5.mg/kg/day for 30 weeks without evidence of toxicity or signs of drug effect. At 2 mg/kg/day mydriasis and dryness of nose were seen. At 5 mg/kg/day, ptosis, convulsions, and weight loss were seen.

#### Quantitative Toxicity Data for Active Ingredient

Test	Species	Route	Results
LD50	Mouse	Intravenous	25.5 mg/kg
LD50	Mouse	Intraperitoneal	65.0 mg/kg
LD50	Cat	Intravenous	33.0 mg/kg

#### SECTION 8 - SPILL/LEAK/DISPOSAL PROCEDURE . . . . .

Steps to be taken in case materials released:

Immediately contact emergency response personnel. Keep unnecessary persons away. If emergency response personnel are unavailable, absorb small spills on vermiculite or other suitable absorbing material and place in a sealed container for disposal. Dike large spills and transfer to an appropriate container for disposal. Use suitable protective equipment (Section 9). Follow all fire prevention procedures (Section 4).

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PAGE 5 of 6

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For additional assistance, CHEMTREC provides a toll-free Hotline for chemical emergencies regarding spills, leaks, exposure or accidents:  
1-800-424-9300.

Environmental Data----- Not available

Waste Disposal Information----- Avoid contact of spilled materials and runoff with soil and surface waterways. Dispose of or treat all spill residues

including contaminated soils following all federal, state and local regulations.

SECTION 9 - SPECIAL PROTECTION INFORMATION . . . . .

Respiratory----- Not required  
Hands/Arms----- Not required unless material is spilled  
then, impervious gloves are recommended.  
Eye/Face----- None required  
Additional Protective Equipment- Work uniform.  
Ventilation----- None required

SECTION 10 - SPECIAL PRECAUTIONS . . . . .

Special Precautions to be taken when:  
Handling----- None recommended at this time.  
Storing----- Store under normal environmental  
conditions.

SECTION 11- BASIC TRANSPORTATION DESCRIPTION . . . . .

U.S. DOT----- Not applicable  
ICAO/IATA----- Not applicable  
IMO----- Not applicable  
Hazardous Substance-Reportable Quantity (RQ)--- Not applicable

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PAGE 6 of 6

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SECTION 12 - MSDS PREPARATION - Last revised, April 1994, B. Naumann. . . . .

R. W. Shackelford, M.D.  
Professional Information-----Date: September 21, 1990  
B. Berglund  
Corporate Environmental Resources-----Date: September 21, 1990  
E. Sargent, Ph.D  
Corporate Safety & Industrial Hygiene-----Date: October 18, 1990

SECTION 13 - MERCK DISCLAIMER . . . . .

While this information and recommendations set forth are believed to be accurate as of the date hereof, MERCK & CO., INC. makes no warranty with respect hereto and disclaims all liability from reliance thereon.