APOTEX
ADVANCING GENERICS

Material Safety Data Sheet

Section 1. Product Identification and Uses

Common/Trade name	**Cabergoline Tablets 0.5 mg**	**DSL#**	Not on the DSL list.
Synonyms	Not available.	**CAS#**	Not applicable.
Chemical name	Not available.	**Molecular weight**	Not applicable.
Chemical family	Ergot derivative	**Chemical formula**	Not applicable.
Supplier	Apotex Corp. Weston, Florida 33326	**Chemical structure**	Not applicable.
Material uses	Pharmaceutical industry: Dosage form Therapeutic category: Dopamine receptor agonist.	**Manufacturer**	Apotex Research Pvt. Ltd. Bangalore - 560 099 INDIA
Emergency phone	FOR EMERGENCIES INVOLVING DANGEROUS GOODS Call CANUTEC's 24-hr Number 613-996-6666 For general information call: 1-(416)-749-9300 ext. 8483 (8 AM-4 PM)	**DIN**	Not available.

Section 2. Hazards Identification

Potential Acute Health Effects	Not expected to be hazardous under normal handling conditions.
Potential Chronic Health Effects	Possible hypersensitization, heart valve disorders, congestive heart failure, and lung disorders.
Apotex Hazard Classification (For Apotex internal practices only)	This material has been assigned hazard class: **2**

Section 3. First Aid Measures

Eye contact	Flush with copious quantities of water. If irritation persists, obtain medical advice.
Skin contact	Not expected to result in hazardous effects.
Hazardous skin contact	Flush with copious amounts of water. Seek medical attention if irritation persist.
Slight inhalation	Not expected to result in hazardous effects.
Hazardous inhalation	Remove from exposure. Persons developing serious hypersensitivity reactions must receive immediate medical attention. If not breathing give artificial respiration (use protective mask with one-way valve). If breathing is difficult give oxygen.
Slight ingestion	Not expected to be hazardous. It is good practice to rinse mouth thoroughly with water and drink a cup of water to minimize discomfort.
Hazardous ingestion	Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Rinse mouth thoroughly with water. If breathing has stopped, trained personnel should begin artificial respiration (use protective mask with one -way valve), or if the heart has stopped, cardiopulmonary resuscitation (CPR) immediately. Seek medical attention. Treatment of overdose should be symptomatic and supportive and may include the following: 1. Administer activated charcoal as a slurry. 2. For hypotension, infuse isotonic fluid. If hypotension persists, administer dopamine or norepinephrine. 3. For dyskinesia, administer diazepam orally. 4. Monitor vital signs, liver function, CBC, and CNS function. If patient is vomiting, monitor fluid and electrolyte status. [Poisindex 2008]

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Section 4. Hazardous Ingredients

Name	CAS #	% (w/w)
Cabergoline	81409-90-7	0.5 - 1.5

Toxicity values of the hazardous ingredients

Refer to Sec. 11.

TLV Not established.

Section 5. Fire Fighting Measures

The product is:	May be combustible at high temperature.
Autoignition temperature	Not available.
Fire degradation products	These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2...).
Flash points	Not available.
Flammable limits	Not available.
Fire extinguishing procedures	Extinguisher media: water spray, dry chemical, carbon dioxide or foam as appropriate for surrounding fire and materials. Special fire fighting procedures: As with all fires, evacuate personnel to safe area. Firefighters should use self-contained breathing equipment and protective clothing.
Flammability	Emits toxic fumes under fire conditions.
	Remark No additional remark.
Risks of explosion	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.
	Remark No additional remark.

Section 6. Accidental Release Measures

Spill and leak	Vacuum or sweep up spillage. Avoid dust. Place spillage into an appropriate labeled waste disposal container. Wash contaminated clothing before reuse. Ventilate area and wash spill site. Follow appropriate Safe Work Practices.

Protective Clothing Pictograms in case of large spill and/or high exposure levels

Protective clothing in case of large spill Full facepiece Air Purifying Respirator with particulate cartridge P100 (HEPA). Gloves. Covering uniform.

Section 7. Handling and Storage

Precautions	Avoid breathing dust.
Storage	Store at controlled room temperature 20° to 25° C (68° to 77° F).

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Exposure to this material can be controlled in many ways. The measures appropriate for a particular worksite depend on how this material is used and on the extent of exposure. Ensure that control systems are designed to comply with occupational, environmental, fire, and other applicable regulations. Engineering methods to control hazardous conditions are preferred. Methods include mechanical (local exhaust) ventilation, process or personnel enclosure and control of process conditions. Administrative controls and personal protective equipment may also be required. Supply sufficient replacement air to make up for air removed by exhaust system.
Personal Protection	When handling small quantity of the product with adequate ventilation, gloves are sufficient. Where a packaging process involves limited containment of open product, a half facepiece Air Purifying Respirator with combination particulate/organic vapour cartridges, covering uniform and safety glasses are required.

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Protective Clothing (Pictograms)

PERSONAL PROTECTIVE EQUIPMENT/RESPIRATORY PROTECTION GUIDELINES: Respiratory protection may not be required in areas where a high degree of process containment exists.
The respirator use limitations specified by the approving agency and the manufacturer must be observed. Refer to the CSA Standard Z94, "Selection, Care, and Use of Respirators". Have appropriate equipment available for use in emergencies such as spills or fire.
EYE/FACE PROTECTION : Safety glasses when working in dusty area.
SKIN PROTECTION : The use of nitrile gloves is required for Good Manufacturing Practices (GMP) compliance.
RESISTANCE OF MATERIALS FOR PROTECTIVE CLOTHING :
Resistance of specific materials can vary from product to product. Evaluate resistance under conditions of use and maintain clothing carefully.
EXPOSURE CONTROLS/PERSONAL PROTECTION COMMENTS: In the event clothing becomes contaminated, remove promptly. Launder before use. Inform laundry personnel of contaminant's hazards. Do not eat, drink or smoke in work areas. Wash hands thoroughly after handling this material. Maintain good housekeeping.

Section 9. Physical and Chemical Properties

Physical state and appearance	White, capsule-shaped, flat, scored tablets, engraved “APO” on one side and “CA” bisect “0.5” on the other side.
pH	Not available.
Taste	Not available.
Odor threshold	Not available.
Odor	Not available.
Volatility	Not available.
Melting point/ Freezing point	Not available.
Boiling point	Not available.
Specific gravity	Not available.
Vapor density	Not available.
Vapor pressure	Not available.
Partition Coefficient:	Not available.
Ionicity (surface active agent)	Not available.
Critical temperature	Not available.
Instability temperature	Not available.
Conditions of instability	No additional remark.
Dispersion properties	See solubility.
Evaporation rate	Not available.
Solubility	Not available.

Section 10. Stability and Reactivity

Stability	Stable under normal temperatures and pressures.
Hazardous decomp. products	When heated to decomposition material emits toxic fumes. Emits toxic fumes under fire conditions.
Degradability	Not available.
Corrosivity	Not available.
	Remark No additional remark.
Reactivity/ Incompatibility	Not available.

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Remark

No additional remark.

Section 11. Toxicological Information

Routes of entry

As the product is a solid dosage form, the major route of entry is ingestion. Other routes of entry, including inhalation, skin and eye contact may occur only under certain circumstances.

Toxicity data

Cabergoline:
RTECS#: KE6167600
LD50: 420 mg/kg (oral-rat male)
LD50: 383 mg/kg (oral-rat female)
LD50: 382 mg/kg (oral-mouse male)
LD50: 202 mg/kg (oral-mouse female)
Sensitization data: Guinea Pig Maximization Test: Not a skin sensitizer

Long-term effects

Carcinogenicity: Not listed as carcinogen by IARC, NTP, ACGIH, or OSHA.
Rats receiving oral doses of 0.320 mg/kg/day for 24 months had a slight increase in malignant cervical and uterine tumors and interstitial cell adenomas; mice receiving oral doses of 0.980 mg/kg/day for 21months had a slight increase in cervical and uterine leiomyomas and uterine leiomyosarcomas. This may be related to species-specific hormone mechanisms so the relevance to humans is unknown.
Reproductive and Developmental Effects: Pregnancy: Category B. In mice, oral doses of 8 mg/kg/day did not increase the incidence of birth defects. In female rats, daily doses of 0.003 mg/kg in females prior to and during mating inhibited conception, and doses of 0.012 mg/kg/day during organogenesis increased postimplantation embryofetal loss. In male rats, doses of 0.032 mg/kg/day did not impair fertility or offspring normalcy. In rabbits, one study using doses of 4 mg/kg/day showed an increased incidence of malformations in the offspring, but another study involving doses of 8 mg/kg/day did not show any treatment-related malformations or embryofetotoxicity. Available studies in women exposed to cabergoline during pregnancy have not shown an increased incidence of birth defects or miscarriage.
Mutagenicity: Cabergoline was negative in the following tests:
In vitro mammalian cell mutagenicity test in hamster cells
In vitro chromosome aberration test in human lymphocytes
In vitro micronucleus test in mouse bone marrow cells
In vitro direct DNA damage test in bacteria
Bacterial mutagenicity test (Ames) in Salmonella typhimurium

Remark

Medical conditions aggravated by exposure: Hypersensitivity to material or to other ergot derivatives, severe liver impairment, uncontrolled hypertension, and heart or lung disorders linked to fibrotic tissue. Persons sensitive to other ergot derivatives may be sensitive to this material as well.

Short-term effects and Signs & Symptoms of overexposure

Adverse effects may include nausea, vomiting, abdominal cramps, loss of appetite, diarrhea, constipation, headache, dizziness, unusual tiredness or weakness, drowsiness, depression, nervousness, hallucinations, low blood pressure, abnormal vision, breast pain, and menstrual irregularities. Possible allergic reaction to material if inhaled, ingested or in contact with skin.
Overdose effects may include low blood pressure, nasal congestion, fainting, and hallucinations.

Remark

The above adverse effects are based on clinical studies.

Section 12. Ecological Information

Ecological Information

Not available.

Section 13. Disposal Considerations

Waste Disposal

For internal Apotex waste disposal: Collect in sealed containers and place in appropriate labeled pharmaceutical solid waste class 261A.
For external waste disposal: Follow all appropriate safe work procedures and federal, provincial and local regulations for disposal. Use only licensed disposal and waste hauling companies.

Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Class	Packing group	Label	Additional information
TDG- road Canada/U.S.			Not regulated.			
ICAO-Air			Not regulated.			
ADR			Not regulated.			
IMDG Class			Not regulated.			

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Section 15. Other Regulatory Information and Pictograms

WHMIS

Class D-2B: Material causing other toxic effects (Toxic).

Remark

Covered by Food & Drug Act and therefore not regulated under WHMIS

EU Classification and Labelling

Exempt from requirements of EU Dangerous Preparations directive - product regulated as a medicinal product, cosmetic product or medical device. R40- Possible risks of irreversible effects.

Other Regulations

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

Section 16. Other Information

References

The Merck Index
HSBD & RTECS Database
PDR Electronic Library
Apotex Product Monograph

MSDS:

U.S. Pharmacopeia

Validation date: (year.month)

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