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### 1. Product and Company Identification

Product Code: 11639

Product Name: Methylphenidate (hydrochloride)
Company Name: Cayman Chemical Company

1180 E. Ellsworth Rd. Ann Arbor, MI 48108

Web site address: www.caymanchem.com

Emergency Contact: CHEMTREC Within USA and Canada: +1 (800)424-9300

CHEMTREC Outside USA and Canada: +1 (703)527-3887

Information: Cayman Chemical Company +1 (734)971-3335

**Intended Use:** For research use only, not for human or veterinary use.

Synonyms: .alpha.-phenyl-2-piperidineacetic acid, methyl ester, monohydrochloride; Concerta; Medikinet;

NSC 169868; Ritalin;

#### 2. Hazards Identification

Acute Toxicity: Oral, Category 4
Respiratory Sensitization, Category 1
Skin Sensitization, Category 1

Germ Cell Mutagenicity, Category 2

Specific Target Organ Toxicity (single exposure), Category 3





GHS Signal Word: Danger

GHS Hazard Phrases: H302: Harmful if swallowed.

H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled

H317: May cause an allergic skin reaction H341: Suspected of causing genetic defects H335: May cause respiratory irritation.

**GHS Precaution Phrases:** P264: Wash hands thoroughly after handling.

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P272: Contaminated work clothing should not be allowed out of the workplace.

P280: Wear protective gloves/clothing and eye/face protection as specified by the

manufacturer/supplier or the competent authority. P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P281: Use personal protective equipment as required.

GHS Response Phrases: P301+312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P330: Rinse mouth.

P304+341: IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position

comfortable for breathing.

P342+311: If experiencing respiratory symptoms call a POISON CENTER or doctor/physician.

P302+352: IF ON SKIN: Wash with plenty of soap and water.

P333+313: If skin irritation or rash occurs, seek medical advice/attention.

P363: Wash contaminated clothing before reuse.

P308+313: IF exposed or concerned: Get medical attention/advice.

P309+311: Call a POISON CENTER or doctor/physician if exposed or you feel unwell.

P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for

breathing.

**GHS Storage and Disposal** Please refer to Section 7 for Storage and Section 13 for Disposal information.

**GHS** format



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Phrases:

Potential Health Effects (Acute Causes respiratory tract irritation.

and Chronic): Harmful if swallowed.

Material is irritating to the mucous membranes and upper respiratory tract.

May be harmful by inhalation or skin absorption.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

May cause eye or skin irritation.

Suspected of causing genetic defects.

## 3. Composition/Information on Ingredients

CAS#	Hazardous Components (Chemical Name)	Concentration	RTECS#
298-59-9	Methylphenidate (hydrochloride)	100.0 %	TM3850000

### 4. First Aid Measures

**Emergency and First Aid** 

Procedures:

In Case of Inhalation: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel.

Get immediate medical attention.

In Case of Skin Contact: Immediately wash skin with soap and plenty of water for at least 20 minutes. Remove contaminated

clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

In Case of Eye Contact: Hold eyelids apart and flush eyes with plenty of water for at least 20 minutes. Have eyes examined

and tested by medical personnel.

In Case of Ingestion: Wash out mouth with water provided person is conscious. Never give anything by mouth to an

unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by

medical personnel.

Signs and Symptoms Of

Exposure:

To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

### 5. Fire Fighting Measures

Flash Pt: No data.

Explosive Limits: LEL: No data. UEL: No data.

Autoignition Pt: No data.

**Suitable Extinguishing Media:** Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.

Use water spray to cool fire-exposed containers.

Unsuitable Extinguishing Media: A solid water stream may be inefficient.

Fire Fighting Instructions: As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or

equivalent), and full protective gear to prevent contact with skin and eyes.

Flammable Properties and

Hazards:

No data available.

No data available.



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#### Accidental Release Measures

Protective Precautions,

Avoid raising and breathing dust, and provide adequate ventilation.

**Protective Equipment and** 

As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).

**Emergency Procedures:** 

**Environmental Precautions:** 

Take steps to avoid release into the environment, if safe to do so.

Steps To Be Taken In Case

Contain spill and collect, as appropriate.

Material Is Released Or Spilled:

Transfer to a chemical waste container for disposal in accordance with local regulations.

## 7. Handling and Storage

Precautions To Be Taken in

Avoid breathing dust/fume/gas/mist/vapours/spray.

Handling:

Avoid prolonged or repeated exposure.

Precautions To Be Taken in

Keep container tightly closed.

Storing:

Store in accordance with information listed on the product insert.

## **Exposure Controls/Personal Protection**

CAS#	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
298-59-9	Methylphenidate (hydrochloride)	No data.	No data.	No data.

**Respiratory Equipment (Specify** NIOSH approved respirator, as conditions warrant.

Type):

Eye Protection: Safety glasses

**Protective Gloves:** Compatible chemical-resistant gloves

Other Protective Clothing: Lab coat

**Engineering Controls** 

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne

(Ventilation etc.):

levels below recommended exposure limits.

Work/Hygienic/Maintenance

Practices:

Do not take internally.

Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower.

Wash thoroughly after handling.

## Physical and Chemical Properties

[ ] Liquid [X]Solid []Gas **Physical States:** 

Appearance and Odor: A crystalline solid

**Melting Point:** No data. **Boiling Point:** No data. Flash Pt: No data. **Evaporation Rate:** No data.

Flammability (solid, gas): No data available.

LEL: No data. UEL: No data. **Explosive Limits:** 

No data.

Vapor Pressure (vs. Air or mm

Hg):

Vapor Density (vs. Air = 1): No data. Specific Gravity (Water = 1): No data. Solubility in Water: No data.

Solubility Notes: ~10 mg/ml in PBS (pH 7.2); ~25 mg/ml in EtOH; ~14 mg/ml in DMF & DMSO;



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Percent Volatile: No data.

Autoignition Pt: No data.

Molecular Formula & Weight: C14H19NO2 • HCl 269.8

10. Stability and Reactivity

Stability: Unstable [ ] Stable [ X ]

Conditions To Avoid: No data available.

Incompatibility - Materials To No data available.

Avoid:

Hazardous Decomposition or

No data available.

Byproducts:

Polymerization: Will occur [ ] Will not occur [ X ]

Stability Note(s): Stable if stored in accordance with information listed on the product insert.

11. Toxicological Information

**Toxicological Information:** The toxicological effects of this product have not been thoroughly studied.

Methylphenidate (hydrochloride) - Toxicity Data: Oral LD50 (rat): 350 mg/kg; Oral LD50 (rabbit):

900 mg/kg;

Chronic Toxicological Effects: Methylphenidate (hydrochloride) - Investigated as a mutagen, reproductive effector, and tumorigen.

Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here.

See actual entry in RTECS for complete information.

Methylphenidate (hydrochloride) RTECS Number: TM3850000

CAS#	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
298-59-9	Methylphenidate (hydrochloride)	n.a.	n.a.	n.a.	n.a.

## 12. Ecological Information

General Ecological Information: Avoid release into the environment.

Runoff from fire control or dilution water may cause pollution.

13. Disposal Considerations

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

14. Transport Information

LAND TRANSPORT (US DOT):

**DOT Proper Shipping Name:** Not dangerous goods.

DOT Hazard Class: UN/NA Number:

LAND TRANSPORT (European ADR/RID):

ADR/RID Shipping Name: Not dangerous goods.

UN Number: Hazard Class:

AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Not dangerous goods.

Additional Transport Transport in accordance with local, state, and federal regulations.

Information:



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## 15. Regulatory Information

EPA SARA (S	superfund Amendments and Reauthorization Ac	t of 1986) Lists			
CAS#	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)	
298-59-9	Methylphenidate (hydrochloride)	No	No	No	
CAS#	Hazardous Components (Chemical Name)	Other US EPA or State Lists			
298-59-9	Methylphenidate (hydrochloride)	1	CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No		

Regulatory Information This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC)

Statement: No.1272/2008.

16. Other Information

Revision Date: 03/03/2016

**Additional Information About** 

No data available.

This Product:

**Company Policy or Disclaimer:** DISCLAIMER: This information is believed to be accurate and represents the best information

> currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for

their particular purposes.