

## SAFETY DATA SHEET

Preparation Date: 07/17/2018

Revision Date: 07/17/2018

Revision Number: G1

### 1. IDENTIFICATION

#### Product identifier

**Product code:** A1147  
**Product Name:** APOMORPHINE HYDROCHLORIDE, HEMIHYDRATE, USP

#### Other means of identification

**Synonyms:** No information available  
**CAS #:** 41372-20-7  
**RTECS #** Not available  
**CI#:** Not available

#### Recommended use of the chemical and restrictions on use

**Recommended use:** No information available.  
**Uses advised against** No information available

**Supplier:** Spectrum Chemical Mfg. Corp  
 14422 South San Pedro St.  
 Gardena, CA 90248  
 (310) 516-8000

**Order Online At:** <https://www.spectrumchemical.com>  
**Emergency telephone number** Chemtrec 1-800-424-9300  
**Contact Person:** Martin LaBenz (West Coast)  
**Contact Person:** Ibad Tirmiz (East Coast)

### 2. HAZARDS IDENTIFICATION

#### Classification

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Acute toxicity - Oral	Category 3
Respiratory sensitization	Category 1
Skin sensitization	Category 1

#### Label elements

##### **Danger**

##### **Hazard statements**

Toxic if swallowed  
 May cause allergy or asthma symptoms or breathing difficulties if inhaled  
 May cause an allergic skin reaction



**Hazards not otherwise classified (HNOC)**

Not Applicable

**Other hazards**

Not available

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Avoid breathing dust/fume/gas/mist/vapors/spray  
In case of inadequate ventilation wear respiratory protection  
Contaminated work clothing must not be allowed out of the workplace  
Wear protective gloves

**Precautionary Statements - Response**

IF ON SKIN: Wash with plenty of water  
If skin irritation or rash occurs: Get medical advice/attention  
Wash contaminated clothing before reuse  
IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.  
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
Rinse mouth

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Components	CAS-No.	Weight %
Apomorphine Hydrochloride, Hemihydrate USP	41372-20-7	100

**4. FIRST AID MEASURES**

**First aid measures**

**General Advice:** Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. First aider needs to protect himself. National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.

**Skin Contact:** Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention if irritation develops. Consult a physician if necessary.

**Eye Contact:** Flush eyes with water for 15 minutes. Get medical attention if irritation occurs. If symptoms persist, call a physician.

**Product code:** A1147

**Product name:** APOMORPHINE  
HYDROCHLORIDE, HEMIHYDRATE,  
USP

**Inhalation:** Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. **WARNING!** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.

**Ingestion:** Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Immediate medical attention is required. Toxic if swallowed.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** May cause allergy or asthma symptoms or breathing difficulties if inhaled  
May cause an allergic skin reaction  
Nausea  
Vomiting  
Drowsiness  
Dizziness  
Headache

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician:** Treat symptomatically.

**Protection of first-aiders**

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

**5. FIRE-FIGHTING MEASURES**

**Extinguishing Media**

**Suitable Extinguishing Media:** Carbon dioxide (CO2). Dry chemical. Water spray mist or foam.

**Unsuitable Extinguishing Media:** No information available.

**Specific hazards arising from the chemical**

**Hazardous Combustion Products:** Carbon Monoxide, Carbon Dioxide. Nitrogen Oxides. Hydrogen Chloride Gas.

**Specific hazards:** When heated to decomposition it emits toxic gases and irritating fumes.

**Special Protective Actions for Firefighters**

**Specific Methods:** No information available.

**Special Protective Equipment for Firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal Precautions:** Ensure adequate ventilation. Wear personal protective equipment. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Avoid dust formation. Avoid breathing dust. Remove all sources of ignition.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas. Prevent product from entering drains. Do not let this chemical enter the environment.

### Methods and material for containment and cleaning up

**Methods for containment** Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

**Methods for cleaning up** Sweep up and shovel. Use appropriate tools to put the spilled solid in a suitable waste disposal container. Clean contaminated surface thoroughly.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

#### **Technical Measures/Precautions:**

Provide sufficient air exchange and/or exhaust in work rooms. Keep away from incompatible materials. Avoid dust formation. Remove all sources of ignition.

#### **Safe Handling Advice**

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Use only in well-ventilated areas. Keep away from heat and sources of ignition. Do not breathe dust. Do not ingest. Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

#### **Technical Measures/Storage Conditions:**

Keep container tightly closed in a dry and well-ventilated place. Sensitive to light. Store in light-resistant containers. Air sensitive. Store away from incompatible materials.

#### **Incompatible Materials:**

Strong oxidizing agents  
Strong bases  
Iron  
Iron salts

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### **National occupational exposure limits**

##### **United States**

Components	CAS-No.	OSHA	NIOSH	ACGIH	AIHA WEEL
Apomorphine Hydrochloride, Hemihydrate USP	41372-20-7	None	None	None	None

##### **Canada**

**Product code:** A1147

**Product name:** APOMORPHINE  
HYDROCHLORIDE, HEMIHYDRATE,  
USP

**4 / 12**

Components	CAS-No.	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Apomorphine Hydrochloride, Hemihydrate USP	41372-20-7	None	None	None	None

### Australia and Mexico

Components	CAS-No.	Australia	Mexico
Apomorphine Hydrochloride, Hemihydrate USP	41372-20-7	None	None

### Appropriate engineering controls

#### Engineering measures to reduce exposure:

Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

### Individual protection measures, such as personal protective equipment

#### Personal Protective Equipment

- Eye protection:** Goggles or Safety glasses with side-shields
- Skin and body protection:** Chemical resistant apron  
Long sleeved clothing  
Gloves
- Respiratory protection:** Effective dust mask. Use a dust respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentration of dust (dust clouds) , inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.
- Hygiene measures:** Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b> Solid	<b>Appearance:</b> Crystalline powder.	<b>Color:</b> Grayish White.
<b>Odor:</b> Odorless.	<b>Taste</b> No information available.	<b>Formula:</b> C17H17NO2.HCl.1/2H2O
<b>Molecular/Formula weight (g/mole):</b> 312.80	<b>Flammability:</b> No information available	<b>Flashpoint (°C/°F):</b> No information available.
<b>Flash Point Tested according to:</b> Not available	<b>Autoignition Temperature (°C/°F):</b> No information available	<b>Lower Explosion Limit (%):</b> No information available
<b>Upper Explosion Limit (%):</b> No information available	<b>Melting point/range(°C/°F):</b> 195°C/383°F	<b>Decomposition temperature(°C/°F):</b> 225°C/437°F

**Product code:** A1147

**Product name:** APOMORPHINE  
HYDROCHLORIDE, HEMIHYDRATE,  
USP

5 / 12

**Boiling point/range(°C/°F):**

No information available

**Bulk density:**

No information available

**Density (g/cm3):**

No information available

**Specific gravity:**

No information available

**pH:**

No information available

**Vapor pressure @ 20°C (kPa):**

No information available

**Evaporation rate:**

No information available

**Vapor density:**

No information available

**VOC content (g/L):**

No information available

**Odor threshold (ppm):**

No information available

**Partition coefficient (n-octanol/water):**

No information available

**Viscosity:**

No information available

**Miscibility:**

No information available

**Solubility:**

Slightly soluble in water

Slightly soluble in alcohol

**10. STABILITY AND REACTIVITY****Reactivity**

No information available

**Chemical stability****Stability:**

Sensitive to light. Sensitive to air. Stable under recommended storage conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization does not occur**Conditions to avoid:**

Heat. Incompatible materials. Exposure to air. Exposure to light. Avoid dust formation.

**Incompatible Materials:**

Strong oxidizing agents

Strong bases

Iron

Iron salts

**Hazardous decomposition products:**

No information available.

**Other Information****Corrosivity:**

No information available

**Special Remarks on Corrosivity:** No information available**11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure****Principal Routes of Exposure:**

None.

**Acute Toxicity****Component Information**

Apomorphine Hydrochloride, Hemihydrate USP

**Product code:** A1147**Product name:** APOMORPHINE  
HYDROCHLORIDE, HEMIHYDRATE,  
USP**6 / 12**

CAS-No.	41372-20-7
---------	------------

**LD50/oral/rat** = < 2000 mg/kg  
**LD50/oral/mouse** = 300 mg/kg  
**LD50/dermal/rabbit** = No information available  
**LD50/dermal/rat** = No information available  
**LC50/inhalation/rat** = No information available  
**LC50/inhalation/mouse** = No information available  
**Other LD50 or LC50 information** = No information available

**Product Information**

**LD50/oral/rat** =  
**VALUE- Acute Tox Oral** = < 2000 mg/kg

**LD50/oral/mouse** =  
**Value - Acute Tox Oral** = 300 mg/kg

**LD50/dermal/rabbit**  
**VALUE-Acute Tox Dermal** = No information available

**LD50/dermal/rat**  
**VALUE -Acute Tox Dermal** = No information available

**LC50/inhalation/rat**  
**VALUE-Vapor** = No information available  
**VALUE-Gas** = No information available  
**VALUE-Dust/Mist** = No information available

**LC50/Inhalation/mouse**  
**VALUE-Vapor** = No information available  
**VALUE - Gas** = No information available  
**VALUE - Dust/Mist** = No information available

**Symptoms**

**Skin Contact:** May cause allergic skin reaction.

**Eye Contact:** May cause eye irritation.

**Inhalation** May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause dizziness and headache. May cause drowsiness/sleepiness. May cause irritation of respiratory tract.

**Ingestion** Toxic if swallowed. Ingestion may cause nausea, vomiting.

**Aspiration hazard** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Chronic Toxicity** Prolonged or repeated inhalation may affect the respiratory system (trachea, bronchi, lungs). Prolonged or repeated ingestion may affect the liver, and kidneys.

**Sensitization:** May cause sensitization by skin contact.

**Mutagenic Effects:** No information available

**Carcinogenic effects:** Not considered carcinogenic.

Components	CAS-No.	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Apomorphine Hydrochloride, Hemihydrate USP	41372-20-7	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

*ACGIH (American Conference of Governmental Industrial Hygienists)*

*IARC (International Agency for Research on Cancer)*

*NTP (National Toxicology Program)*

*OSHA (Occupational Safety and Health Administration of the US Department of Labor)*

**Reproductive toxicity** No data is available

**Reproductive Effects:** No information available

**Developmental Effects:** No information available

**Teratogenic Effects:** No information available

**Specific Target Organ Toxicity**

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Target Organs:** No information available.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Ecotoxicity effects:** No data available.

**Persistence and degradability:** No information available

**Bioaccumulative potential:** No information available.

**Mobility:** No information available.

**13. DISPOSAL CONSIDERATIONS**

**Disposal Methods**

**Waste from residues / unused products:**

Waste must be disposed of in accordance with Federal, State and Local regulation.

**Contaminated packaging:**

Empty containers should be taken for local recycling, recovery or waste disposal

Components	CAS-No.	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Apomorphine Hydrochloride, Hemihydrate USP	41372-20-7	None	None	None	None

**14. TRANSPORT INFORMATION**

**Product code:** A1147

**Product name:** APOMORPHINE  
HYDROCHLORIDE, HEMIHYDRATE,  
USP

**8 / 12**



**DOT**

**UN-No:** UN2811  
**Proper Shipping Name:** Toxic solids, organic, n.o.s.  
**Hazard Class:** 6.1  
**Subsidiary Class:** No information available  
**Packing group:** III  
**Emergency Response Guide Number:** 154  
**Marine Pollutant:** Severe Marine Pollutant  
**DOT RQ (lbs):** No information available  
**Special Provisions:** IB8, IP3, T1, TP33  
**Symbol(s):** No information available  
**Description:** UN2811, Toxic solids, organic, n.o.s., 6.1, III

**TDG (Canada)**

**UN-No:** UN2811  
**Proper Shipping Name:** Toxic solid, organic, n.o.s.  
**Hazard Class:** 6.1  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**Marine Pollutant:** No Information available  
**Description:** UN2811, Toxic solid, organic, n.o.s., 6.1, III

**ADR**

**UN-No:** UN2811  
**Proper Shipping Name:** Toxic solid, organic, n.o.s.  
**Hazard Class:** 6.1  
**Packing Group:** III  
**Subsidiary Risk:** No information available  
**Special Provisions:** 274, 614  
**Description:** UN2811, Toxic solid, organic, n.o.s., 6.1, III

**IMO / IMDG**

**UN-No:** UN2811  
**Proper Shipping Name:** Toxic solids, organic, n.o.s.  
**Hazard Class:** 6.1  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**Marine Pollutant:** No information available  
**EMS:** F-A  
**Special Provisions:** 223, 274  
**Description:** UN2811, Toxic solid, organic, n.o.s. (APOMORPHINE HYDROCHLORIDE, HEMIHYDRATE USP), 6.1, III

**RID**

**UN-No:** UN2811  
**Proper Shipping Name:** Toxic solid, organic, n.o.s.  
**Hazard Class:** 6.1  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**Special Provisions:** 274, 614  
**Description:** UN2811, Toxic solid, organic, n.o.s., 6.1, III

**ICAO**

**UN-No:** UN2811  
**Proper Shipping Name:** Toxic solid, organic, n.o.s.  
**Hazard Class:** 6.1

**Product code:** A1147

**Product name:** APOMORPHINE  
HYDROCHLORIDE, HEMIHYDRATE,  
USP

**Subsidiary Risk:** No information available  
**Packing Group:** III  
**Description:** UN2811, Toxic solid, organic, n.o.s., 6.1, III  
**Special Provisions** A3, A5

**IATA**

**UN-No:** UN2811  
**Proper Shipping Name:** Toxic solid, organic, n.o.s.  
**Hazard Class:** 6.1  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**ERG Code:** 6L  
**Special Provisions** No information available  
**Description:** UN2811, Toxic solid, organic, n.o.s., 6.1, III

**15. REGULATORY INFORMATION**

**International Inventories**

Components	CAS-No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Apomorphine Hydrochloride, Hemihydrate USP	41372-20-7	Not Listed	Not present	Not present	Not present	Not present	Not present	Not present

**U.S. Regulations**

**California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.**

**Chemicals Known to the State of California to Cause Cancer:**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

**Chemicals Known to the State of California to Cause Reproductive Toxicity:**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	CAS-No.	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Apomorphine Hydrochloride, Hemihydrate USP	41372-20-7	Not Listed	Not Listed	Not Listed	Not Listed

**CERCLA/SARA**

Components	CAS-No.	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
Apomorphine Hydrochloride, Hemihydrate USP	41372-20-7	None	None	None	None	None

**U.S. TSCA**

Components	CAS-No.	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Apomorphine Hydrochloride, Hemihydrate USP	41372-20-7	Not Applicable	Not Applicable

**Canada**

**Product code:** A1147

**Product name:** APOMORPHINE  
HYDROCHLORIDE, HEMIHYDRATE,  
USP

**WHMIS 2015 - GHS Classifications**

WHMIS 2015 Hazard Classification Information: Not a dangerous product according to HPR classification criteria.

**Canada Hazardous Products Regulation** This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

**WHMIS 1988 Hazard Class**

Non-controlled

**Canada Controlled Products Regulation:**

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

**Inventory**

Components	CAS-No.	Canada (DSL)	Canada (NDSL)
Apomorphine Hydrochloride, Hemihydrate USP	41372-20-7	Not Listed	Not Listed

Components	CAS-No.	CEPA Schedule I - Toxic Substances
Apomorphine Hydrochloride, Hemihydrate USP	41372-20-7	Not listed
Components	CAS-No.	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Apomorphine Hydrochloride, Hemihydrate USP	41372-20-7	Not listed

**EU Classification****EU GHS - SV - CLP 1272/2008**

Components	CAS-No.	EU GHS - SV - CLP (1272/2008)
Apomorphine Hydrochloride, Hemihydrate USP	41372-20-7	

**EU - CLP (1272/2008)****R-phrase(s)**

R25 - Toxic if swallowed.  
 R43 - May cause sensitization by skin contact.  
 R20 - Harmful by inhalation.

**S -phrase(s)**

S 1 - Keep locked up.  
 S 2 - Keep out of the reach of children.  
 S 7 - Keep container tightly closed.

Components	CAS-No.	Classification	Concentration Limits:	Safety Phrases
Apomorphine Hydrochloride, Hemihydrate USP	41372-20-7		No information	

**The product is classified in accordance with Annex VI to Directive 67/548/EEC**

**Indication of danger:**

T - Toxic

**Product code:** A1147

**Product name:** APOMORPHINE  
 HYDROCHLORIDE, HEMIHYDRATE,  
 USP

**11 / 12**

## 16. OTHER INFORMATION

**Preparation Date:** 07/17/2018  
**Revision Date:** 07/17/2018  
**Prepared by:** Sonia Owen

**Disclaimer:** All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

**End of Safety Data Sheet**