

SAFETY DATA SHEET

Preparation Date: 1/4/2018

Revision Date: 1/4/2018

Revision Number: G1

1. IDENTIFICATION

Product identifier

Product code: BR169
Product Name: BRUCINE, ANHYDROUS

Other means of identification

Synonyms: Brucina (Italian)
 (-)-Brucine
 2,3-Dimethoxystrychnidin-10-one
 Dimethoxy strychnine
 2,3-Dimethoxy-strychnine
 10,11-Dimethystrychnine
 Strychnidin-10-one, 2,3-dimethoxy-
 Strychnine, 2,3-dimethoxy-
CAS #: 357-57-3
RTECS # EH8925000
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 1
Acute toxicity - Inhalation (Gases)	Category 2
Acute toxicity - Inhalation (Vapors)	Category 2
Acute toxicity - Inhalation (Dusts/Mists)	Category 2
Specific target organ toxicity (single exposure)	Category 3 Category 2

Label elements

Danger

Hazard statements

Fatal if swallowed
Fatal if inhaled
May cause respiratory irritation
May cause damage to organs



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

Harmful to aquatic life with long lasting effects

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Do not breathe dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wear respiratory protection

Precautionary Statements - Response

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately 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
Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Brucine, Anhydrous	357-57-3	100

4. FIRST AID MEASURES

First aid measures

General Advice: 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.

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: Fatal if swallowed. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Immediate medical attention is required. Call a physician or Poison Control Center immediately.

Most important symptoms and effects, both acute and delayed

Symptoms

- May cause eye/skin irritation
- Irritating to respiratory system
- May cause nausea and vomiting
- Respiratory depression
- Respiratory failure
- Central nervous system effects
- Convulsions
- Restlessness
- Excitement
- Twitching
- Somnolence
- Headache
- Blurred vision
- Foggy vision
- May cause tinnitus
- Paralysis

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: Dry chemical. Carbon dioxide (CO₂). 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.

Specific hazards: May be combustible at high temperatures.

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. Keep people away from and upwind of spill/leak. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid breathing dust. Avoid dust formation. Remove all sources of ignition.

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

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 Use appropriate tools to put the spilled material in a suitable chemical 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. Avoid dust formation. Keep away from incompatible materials.

Safe Handling Advice

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Do not breathe dust. Keep container tightly sealed. Use only in well-ventilated areas. Keep away from heat and sources of ignition. 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. Store at room temperature in the original container. Store away from incompatible materials. Store in a segregated and approved area.

Incompatible Materials:

Strong oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	CAS-No.	OSHA	NIOSH	ACGIH	AIHA WEEL
Brucine, Anhydrous	357-57-3	None	None	None	None

Canada

Components	CAS-No.	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Brucine, Anhydrous	357-57-3	None	None	None	None

Australia and Mexico

Components	CAS-No.	Australia	Mexico
Brucine, Anhydrous	357-57-3	None	None

Appropriate engineering controls

Engineering measures to reduce exposure:

Ensure adequate ventilation, especially in confined areas. 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. In case of insufficient ventilation wear suitable respiratory equipment.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection:

Goggles

Skin and body protection:

Chemical resistant apron
Long sleeved clothing
Gloves

Respiratory protection:

Wear respirator with dust filter. Be sure to use an approved/certified respirator or equivalent.

Hygiene measures:

When using, do not eat, drink or smoke. Avoid contact with skin, eyes and clothing. Wear suitable gloves and eye/face protection. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:

Solid

Appearance:

Crystalline powder.

Color:

White.

Odor:

Odorless.

Taste

No information available.

Formula:

C₂₃H₂₆N₂O₄

Molecular/Formula weight:

394.45 g/mol

Flammability:

No information available

Flashpoint (°C/°F):

No information available.

Flash Point Tested according to:

Not available

Autoignition Temperature (°C/°F):

No information available

Lower Explosion Limit (%):

No information available

Upper Explosion Limit (%):

No information available

Melting point/range(°C/°F):

174-179°C/345.2-354.2°F

Decomposition temperature(°C/°F):

No information available

Product code: BR169

Product name: BRUCINE,
ANHYDROUS

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):

log Kow = 0.98

Viscosity:

No information available

Miscibility:

No information available

Solubility:Slightly soluble in water
Slightly soluble in Ether
Slightly soluble in Ethyl acetate
Slightly soluble in glycerin
Very soluble in Ethanol
Soluble in Chloroform**10. STABILITY AND REACTIVITY****Reactivity**

Reactive with oxidizing agents

Chemical stability**Stability:**

Stable under recommended storage conditions.

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

Heat. Ignition sources. Incompatible materials.

Incompatible Materials:

Strong oxidizing agents

Hazardous decomposition products:

Nitrogen oxides (NOx). Carbon monoxide.

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:**

Ingestion. Inhalation.

Acute Toxicity**The following values are calculated based on chapter 3.1 of the GHS document
Component Information**

Brucine, Anhydrous

CAS-No.	357-57-3
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LD50/oral/rat = 1 mg/kg Oral LD50 Rat
LD50/oral/mouse = 150 mg/kg Oral LD50 Mouse
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 = 1 mg/kg

LD50/oral/mouse =
Value - Acute Tox Oral = 150 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 skin irritation.

Eye Contact: May cause eye irritation.

Inhalation Fatal if inhaled. Irritating to respiratory system.

Ingestion Fatal if swallowed. Ingestion may cause nausea, vomiting. May affect behavior/central nervous system (somnolence). It may affect behavior/central nervous system (convulsions, excitement). It may cause twitching or tremors/trembling. May cause headache. May cause blurred or foggy vision. May affect respiration (respiratory depression). May cause tinnitus.

Ingestion: May cause restlessness

Aspiration hazard No information available.

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

Chronic Toxicity No information available.

Sensitization: No information available.

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
Brucine, Anhydrous	357-57-3	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 Respiratory system. central nervous system.

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
Brucine, Anhydrous	357-57-3	None	None	P018	None

14. TRANSPORT INFORMATION

DOT

Product code: BR169

Product name: BRUCINE,
ANHYDROUS

8 / 12

UN-No: UN1570
Proper Shipping Name: Brucine
Hazard Class: 6.1
Subsidiary Class: No information available
Packing group: I
Emergency Response Guide Number: 152
Marine Pollutant: No data available
DOT RQ (lbs): No information available
Special Provisions: IB7, IP1, T6, TP33
Symbol(s): No information available
Description: UN1570, Brucine, 6.1, I

TDG (Canada)

UN-No: UN1570
Proper Shipping Name: Brucine
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: I
Marine Pollutant: No Information available
Description: UN1570, Brucine, 6.1, I

ADR

UN-No: UN1570
Proper Shipping Name: Brucine
Hazard Class: 6.1
Packing Group: I
Subsidiary Risk: No information available
Special Provisions: 43
Description: UN1570, Brucine, 6.1, I

IMO / IMDG

UN-No: UN1570
Proper Shipping Name: Brucine
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: I
Marine Pollutant: No information available
EMS: F-A
Special Provisions: 43
Description: UN1570, Brucine, 6.1, I

RID

UN-No: UN1570
Proper Shipping Name: Brucine
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: I
Special Provisions: 43
Description: UN1570, Brucine, 6.1, I

ICAO

UN-No: UN1570
Proper Shipping Name: Brucine
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: I
Description: UN1570, Brucine, 6.1, I
Special Provisions: A6

IATA

UN-No: UN1570
Proper Shipping Name: Brucine
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: I
ERG Code: 6L
Special Provisions No information available
Description: UN1570, Brucine, 6.1, I

15. REGULATORY INFORMATION

International Inventories

Components	CAS-No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
<i>Brucine, Anhydrous</i>	357-57-3	Present	Present KE-11102	Present	Not present	Present	Present	Present 206-614-7

U.S. Regulations*Brucine, Anhydrous*

Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: sn 0270
New Jersey (EHS) List: SN 0270 500 lb TPQ
New Jersey - Discharge Prevention - List of Hazardous Substances: Present
Pennsylvania RTK: Environmental hazard
Pennsylvania RTK - Environmental Hazard List Present
New York Release Reporting - List of Hazardous Substances:
 10 lb RQ
 1 lb RQ
Louisiana Reportable Quantity List for Pollutants: Listed

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:
<i>Brucine, Anhydrous</i>	357-57-3	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
<i>Brucine, Anhydrous</i>	357-57-3	100 lb final RQ 45.4 kg final RQ	None	None	None	1.0 % de minimis concentration

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
<i>Brucine, Anhydrous</i>	357-57-3	Not Applicable	Not Applicable

Product code: BR169**Product name:** BRUCINE,
ANHYDROUS**10 / 12**

Canada

WHMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information:

The WHMIS 2015 classification of this product has not been validated or reviewed yet.

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

D1A Very toxic materials

Components Brucine, Anhydrous

WHMIS 1988
D1A

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.

Components	WHMIS Ingredient Disclosure List -
Brucine, Anhydrous	1 %

Inventory

Components	CAS-No.	Canada (DSL)	Canada (NDSL)
Brucine, Anhydrous	357-57-3	Present	Not Listed

Components	CAS-No.	CEPA Schedule I - Toxic Substances
Brucine, Anhydrous	357-57-3	Not listed
Components	CAS-No.	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Brucine, Anhydrous	357-57-3	Not listed

EU Classification

EU GHS - SV - CLP 1272/2008

Components	CAS-No.	EU GHS - SV - CLP (1272/2008)
Brucine, Anhydrous	357-57-3	Acute toxicity - Oral - Acute Tox. 2: H300 Fatal if swallowed. (Minimum classification); Acute toxicity - Inhalation - Acute Tox. 2: H330 Fatal if inhaled. (Minimum classification); Hazardous to aquatic environment - chronic hazard - Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects.614-006-00-1

EU - CLP (1272/2008)

R-phrase(s)

R52 - Harmful to aquatic organisms.

R53 - May cause long-term adverse effects in the aquatic environment.

R26/28 - Very toxic by inhalation and if swallowed.

S-phrase(s)

S13 - Keep away from food, drink and animal feedingstuffs.

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S61 - Avoid release to the environment. Refer to special instructions/safety data sheets.

Product code: BR169

Product name: BRUCINE,
ANHYDROUS

11 / 12

S 1/2 - Keep locked up and out of the reach of children.

Components	CAS-No.	Classification	Concentration Limits:	Safety Phrases
Brucine, Anhydrous	357-57-3	T+; R26/28 R52-53	No information	S1/2 S13 S45 S61

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

Indication of danger:

None.

16. OTHER INFORMATION

Preparation Date: 1/4/2018
Revision Date: 1/4/2018
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