

# Safety Data Sheet

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Version 6

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name** Mertansine (DM1 Compound)

**UN/ID No** UN2811

**Recommended use** For research use only

**Supplier Address** Abcam Inc  
1 Kendall Square, Ste 341  
Cambridge, MA 02139-1517  
USA  
Tel: (617)225-2272 or 888-77-ABCAM (22226) (US toll free)  
Fax: (866) 739-9884 or (866) 457-9616 (both US toll free)

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**Emergency telephone** +1 866 928 0789 (Toll free) /+1 202 464 2554

## 2. HAZARDS IDENTIFICATION

### GHS - Classification

Acute oral toxicity	Category 2
Acute dermal toxicity	Category 1
Acute inhalation toxicity - dust/mist	Category 4
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Germ cell mutagenicity	Category 1A
Carcinogenicity	Category 1A
Reproductive toxicity	Category 1A
Specific target organ systemic toxicity (single exposure)	Category 1
Specific target organ systemic toxicity (repeated exposure)	Category 1

### GHS Label elements, including precautionary statements



**Signal Word**

Danger

**Hazard statements**

H300 - Fatal if swallowed  
H310 - Fatal in contact with skin  
H332 - Harmful if inhaled  
H314 - Causes severe skin burns and eye damage  
H318 - Causes serious eye damage  
H340 - May cause genetic defects  
H350 - May cause cancer  
H360 - May damage fertility or the unborn child  
H370 - Causes damage to organs  
H372 - Causes damage to organs through prolonged or repeated exposure

**Precautionary Statements - EU (§28, 1272/2008)**

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  
P271 - Use only outdoors or in a well-ventilated area  
P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
P280 - Wear protective gloves/ eye protection/ face protection  
P262 - Do not get in eyes, on skin, or on clothing  
P270 - Do not eat, drink or smoke when using this product  
P264 - Wash face, hands and any exposed skin thoroughly after handling  
P302 + P350 - IF ON SKIN: Gently wash with plenty of soap and water  
P361 - Remove/ Take off immediately all contaminated clothing  
P363 - Wash contaminated clothing before reuse  
P307 + P311 - IF exposed: Call a POISON CENTER or doctor/ physician  
P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing  
P312 - Call a POISON CENTER or doctor/ physician if you feel unwell  
P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting  
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower  
P314 - Get medical advice/ attention if you feel unwell  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P405 - Store locked up  
P501 - Dispose of contents/ container to an approved waste disposal plant

**Other information**

Caution - substance not yet tested completely

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substances

Chemical Name	CAS-No	Weight %	Classification (Reg. 1272/2008)
Mertansine	139504-50-0	100	STOT SE 1 (H370) STOT RE 1 (H372) Skin Corr. 1B (H314) Muta. 1A (H340) Carc. 1A (H350) Repr. 1A (H360FD) Acute Tox. 2 (H300) Acute Tox. 1 (H310)

For the full text of the H-Statements mentioned in this Section, see Section 16

### 4. FIRST AID MEASURES

<b>General advice</b>	Immediate medical attention is required. If symptoms persist, call a physician.
<b>Eye contact</b>	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Immediate medical attention is required.
<b>Skin contact</b>	Immediate medical attention is required. Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
<b>Inhalation</b>	Move to fresh air. If symptoms persist, call a physician. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Immediate medical attention is required.
<b>Ingestion</b>	Rinse mouth. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Do NOT induce vomiting. Immediate medical attention is required.
<b>Notes to physician</b>	Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. Treat symptomatically.
<b>Protection of first-aiders</b>	Use personal protective equipment. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### 5. FIRE-FIGHTING MEASURES

<b>Flammable properties</b>	Not flammable.
<b>Flash point</b>	not determined
<b>Suitable extinguishing media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Explosion Data</b>	
<b>Sensitivity to Mechanical Impact</b>	None.
<b>Sensitivity to Static Discharge</b>	None.

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<b>Specific hazards arising from the chemical</b>	The product causes burns of eyes, skin and mucous membranes Thermal decomposition can lead to release of irritating gases and vapors In the event of fire and/or explosion do not breathe fumes
<b>Protective equipment and precautions for firefighters</b>	Wear self-contained breathing apparatus and protective suit.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	Use personal protective equipment. Evacuate personnel to safe areas. Avoid contact with skin, eyes and clothing. Keep people away from and upwind of spill/leak.
<b>Environmental precautions</b>	Try to prevent the material from entering drains or water courses.
<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so. Cover powder spill with plastic sheet or tarp to minimize spreading. Dike far ahead of liquid spill for later disposal.
<b>Methods for cleaning up</b>	Take up mechanically and collect in suitable container for disposal. Clean contaminated surface thoroughly. Use personal protective equipment. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Avoid dust formation. Dam up. After cleaning, flush away traces with water.
<b>Other information</b>	Refer to protective measures listed in sections 7 and 8.

## 7. HANDLING AND STORAGE

<b>Advice on safe handling</b>	Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation at machinery.
<b>Technical measures/Storage conditions</b>	Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Exposure Guidelines</b>	This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
<b>Engineering measures</b>	Showers Eyewash stations Ventilation systems
<b>Personal protective equipment</b>	
<b>Eye/face protection</b>	Tightly fitting safety goggles. Face-shield.
<b>Skin and body protection</b>	Long sleeved clothing. Protective gloves.
<b>Respiratory protection</b>	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
<b>Hygiene measures</b>	When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Keep away from food, drink and animal feeding stuffs. Contaminated work clothing should not be allowed out of the workplace. Provide regular cleaning of equipment, work area and clothing. Avoid contact with skin, eyes and clothing. For environmental protection, remove and wash all contaminated protective equipment before re-use. Wear suitable gloves and eye/face protection.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	White to off-white solid.	<b>Odor</b>	No information available.
<b>Odor Threshold</b>	No information available	<b>Physical State @20°C</b>	Solid
<b>pH</b>	No information available	<b>Autoignition temperature</b>	No information available
<b>Flash point</b>	No information available	<b>Boiling point/boiling range</b>	No information available
<b>Decomposition temperature</b>	No information available	<b>Flammability Limits in Air</b>	No information available
<b>Melting point/range</b>	No information available		
<b>Explosion limits</b>	No information available	<b>solubility</b>	No information available.
<b>Specific Gravity</b>	No data available	<b>Vapor Pressure @20°C (kPa)</b>	No information available
<b>Evaporation rate</b>	No information available	<b>VOC Content(%)</b>	Not applicable
<b>Vapor density</b>	No data available		

## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable under recommended storage conditions.
<b>Incompatible products</b>	Incompatible with strong acids and bases. Incompatible with oxidizing agents.
<b>Conditions to avoid</b>	Exposure to air or moisture over prolonged periods.
<b>Hazardous decomposition products</b>	Thermal decomposition can lead to release of irritating gases and vapors.
<b>Hazardous polymerization</b>	Hazardous polymerization does not occur.

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

<b>Product Information</b>	Very toxic in contact with skin and if swallowed
<b>Inhalation</b>	Harmful by inhalation Corrosive by inhalation Causes burns
<b>Eye contact</b>	Causes burns Corrosive to eyes
<b>Skin contact</b>	Avoid contact with skin Very toxic in contact with skin Corrosive Causes burns
<b>Ingestion</b>	Very toxic if swallowed Causes burns

### Chronic toxicity

<b>Chronic toxicity</b>	Chronic exposure to corrosive fumes/gases may cause erosion of the teeth followed by jaw necrosis. Bronchial irritation with chronic cough and frequent attacks of pneumonia are common. Gastrointestinal disturbances may also be seen Avoid repeated exposure Possible risks of irreversible effects
<b>Mutagenic effects</b>	Possible risks of irreversible effects.
<b>Reproductive toxicity</b>	Product is or contains a chemical which is a known or suspected reproductive hazard
<b>Developmental Toxicity</b>	Contains ingredients that have suspected developmental hazards Possible risk of harm to the unborn child May cause birth defects
<b>Target Organ Effects</b>	None known.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

The environmental impact of this product has not been fully investigated.

## 13. DISPOSAL CONSIDERATIONS

<b>Waste disposal methods</b>	This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.
<b>Contaminated packaging</b>	Do not re-use empty containers.

## 14. TRANSPORT INFORMATION

<b>DOT</b>	Excepted Quantity
<b>Proper shipping name</b>	Toxic solid, organic, n.o.s. (Mertansine)
<b>Hazard class</b>	6.1
<b>UN/ID No</b>	UN2811

<b>Packing group</b>	I
<b>IATA</b>	Excepted Quantity
<b>UN/ID No</b>	UN2811
<b>Proper shipping name</b>	Toxic solid, organic, n.o.s. (Mertansine)
<b>Hazard class</b>	6.1
<b>Packing group</b>	I
<b>ADR</b>	Excepted Quantity
<b>Proper shipping name</b>	Toxic solid, organic, n.o.s. (Mertansine)
<b>Hazard class</b>	6.1
<b>UN/ID No</b>	UN 2811
<b>Packing group</b>	I

## 15. REGULATORY INFORMATION

### U.S. Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

#### **SARA 311/312 Hazard Categories**

<b>Acute Health Hazard</b>	yes
<b>Chronic Health Hazard</b>	yes
<b>Fire Hazard</b>	no
<b>Sudden Release of Pressure Hazard</b>	no
<b>Reactive Hazard</b>	no

#### **Clean Water Act**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

#### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

### U.S. State Regulations

#### **California Proposition 65**

This product does not contain any Proposition 65 chemicals.

### U.S. State Right-to-Know Regulations

### International Regulations

#### **WHMIS Note:**

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

**16. OTHER INFORMATION****Full text of H-Statements referred to under sections 2 and 3**

H370 - Causes damage to organs if inhaled H372 - Causes damage to organs through prolonged or repeated exposure if inhaled  
H314 - Causes severe skin burns and eye damage H340 - May cause genetic defects if inhaled H350 - May cause cancer if  
swallowed H360Fd - May damage fertility. Suspected of damaging the unborn child H300 - Fatal if swallowed H310 - Fatal in  
contact with skin

**Hazard statements**

H300 - Fatal if swallowed  
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**Revision Date** 08-Jan-2020

**Revision Note** No information available.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of MSDS**