1. PRODUCT AND COMPANY IDENTIFICATION

Product name                             Lappaconitine

UN/ID No                                  1544

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)

E-mail address                            technical@abcam.com

Emergency telephone                      Tel: (617)225-2272 or 888-77-ABCAM (22226) (US toll free) - Monday-Friday 8am-9pm EST

2. HAZARDS IDENTIFICATION

GHS - Classification                      

Acute oral toxicity                      Category 2

GHS Label elements, including precautionary statements

Signal Word
Danger

Hazard statements
H300 - Fatal if swallowed
3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

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

4. FIRST AID MEASURES

General advice
Immediate medical attention is required.

Eye contact
Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes.

Skin contact
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Inhalation
Move to fresh air.

Ingestion
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.

Notes to physician
Treat symptomatically.

Protection of first-aiders
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

Flammable properties
Not flammable.

Flash point
not determined

Suitable extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Explosion Data

Sensitivity to Mechanical Impact
none.

Sensitivity to Static Discharge
none.

Protective equipment and precautions 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 | Use personal protective equipment. Avoid contact with the skin and the eyes. Avoid dust formation. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. |
| Environmental precautions | Try to prevent the material from entering drains or water courses. |
| Methods for containment | 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. |
| Methods for cleaning up | Cover liquid spill with sand, earth or other noncombustible absorbent material. Cover powder spill with plastic sheet or tarp to minimize spreading. Sweep up and shovel into suitable containers for disposal. |
| Other information | Refer to protective measures listed in sections 7 and 8. |

### 7. HANDLING AND STORAGE

| Advice on safe handling | Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Use only in area provided with appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. |
| Technical measures/Storage conditions | Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep in properly labeled containers. |

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

| Exposure Guidelines | This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies. |
| Engineering measures | Showers  
Eyewash stations  
Ventilation systems |
| Personal protective equipment | Eye/face protection: Tightly fitting safety goggles.  
Skin and body protection: No special protective equipment required.  
Respiratory protection: 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. |
| Hygiene measures | When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Provide regular cleaning of equipment, work area and clothing. Wash hands before breaks and Immediately after handling the product. Keep away from food, drink and animal feeding stuffs. |
### 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>No information available.</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No information available</td>
</tr>
<tr>
<td>pH</td>
<td>No information available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No information available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No information available</td>
</tr>
<tr>
<td>Melting point/range</td>
<td>No information available</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>No information available</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>no data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
</tr>
<tr>
<td>VOC Content(%)</td>
<td>not applicable</td>
</tr>
<tr>
<td>Odor</td>
<td>Physical State @20°C</td>
</tr>
<tr>
<td>Physical State @20°C</td>
<td>Solid</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No information available</td>
</tr>
<tr>
<td>Boiling point/boiling range</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability Limits in Air</td>
<td>No information available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No information available</td>
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<td>No information available</td>
</tr>
<tr>
<td>Flammability Limits in Air</td>
<td>No information available</td>
</tr>
<tr>
<td>Stability</td>
<td>Stable under recommended storage conditions.</td>
</tr>
<tr>
<td>Incompatible products</td>
<td>None known based on information supplied.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>None known based on information supplied.</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>Carbon monoxide (CO). Carbon dioxide (CO2). Nitrogen oxides (NOx).</td>
</tr>
<tr>
<td>Hazardous polymerization</td>
<td>Hazardous polymerization does not occur.</td>
</tr>
</tbody>
</table>

### 10. STABILITY AND REACTIVITY

- **Stability**: Stable under recommended storage conditions.
- **Incompatible products**: None known based on information supplied.
- **Conditions to avoid**: None known based on information supplied.
- **Hazardous decomposition products**: Carbon monoxide (CO). Carbon dioxide (CO2). Nitrogen oxides (NOx).
- **Hazardous polymerization**: Hazardous polymerization does not occur.

### 11. TOXICOLOGICAL INFORMATION

#### Acute toxicity
- **Product Information**: Very toxic if swallowed.
- **Inhalation**: There is no data available for this product.
- **Ingestion**: Very toxic if swallowed.

#### Chronic toxicity
- **Mutagenic effects**: No information available.
- **Target Organ Effects**: None known.

### 12. ECOLOGICAL INFORMATION

- **Ecotoxicity**: The environmental impact of this product has not been fully investigated.
13. DISPOSAL CONSIDERATIONS

Waste disposal methods
Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix
the material with a combustible solvent and burn in a chemical incinerator equipped with an
afterburner and scrubber. Observe all federal, state and local laws. The use of licensed
waste hauler and disposal contractors is advised.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT
- Proper shipping name: Alkaloids, solid, n.o.s. (Lappaconitine)
- Hazard class: 6.1
- UN/ID No: 1544
- Packing group: II

IATA
- UN/ID No: 1544
- Proper shipping name: Alkaloids, solid, n.o.s. (Lappaconitine)
- Hazard class: 6.1
- Packing group: II

ADR
- Proper shipping name: Alkaloids, solid, n.o.s. (Lappaconitine)
- Hazard class: 6.1
- UN/ID No: 1544
- Packing group: II

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

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>SARA 311/312</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Health Hazard</td>
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</tr>
<tr>
<td>Chronic Health Hazard</td>
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</tr>
<tr>
<td>Fire Hazard</td>
<td>no</td>
</tr>
<tr>
<td>Sudden Release of Pressure Hazard</td>
<td>no</td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>no</td>
</tr>
</tbody>
</table>

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

H300 - Fatal if swallowed

Hazard statements
H300 - Fatal if swallowed

Revision Date 13-Jul-2015
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