

# Safety Data Sheet

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Revision Date 13-Jul-2015

Version 2

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name** Neostigmine bromide (Prostigmin)

**UN/ID No** 2811

**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 3
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Specific target organ systemic toxicity (single exposure)	Category 3

### GHS Label elements, including precautionary statements



**Signal Word**  
Danger

**Hazard statements**

H301 - Toxic if swallowed  
 H315 - Causes skin irritation  
 H317 - May cause an allergic skin reaction  
 H319 - Causes serious eye irritation  
 H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled  
 H335 - May cause respiratory irritation

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

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician  
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing  
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
 P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician  
 P332 + P313 - If skin irritation occurs: Get medical advice/ attention  
 P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray  
 P280 - Wear protective gloves/ eye protection/ face protection  
 P285 - In case of inadequate ventilation wear respiratory protection  
 P264 - Wash face, hands and any exposed skin thoroughly after handling  
 P270 - Do not eat, drink or smoke when using this product  
 P271 - Use only outdoors or in a well-ventilated area  
 P403 + P233 - Store in a well-ventilated place. Keep container tightly closed  
 P330 - Rinse mouth  
 P501 - Dispose of contents/ container to an approved waste disposal plant  
 P405 - Store locked up  
 P272 - Contaminated work clothing should not be allowed out of the workplace  
 P363 - Wash contaminated clothing before reuse

**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)
Neostigmine bromide	114-80-7	>100	Acute Tox. 3 (H301) Eye Irrit. 2 (H319) STOT SE 3 (H335) Skin Irrit. 2 (H315) Resp. Sens. 1 (H334) Skin Sens. 1 (H317)

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

**4. FIRST AID MEASURES**

<b>General advice</b>	When symptoms persist or in all cases of doubt seek medical advice.
<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. If symptoms persist, call a physician.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. May cause an allergic skin reaction. If symptoms persist, call a physician.
<b>Inhalation</b>	Move to fresh air. Artificial respiration and/or oxygen may be necessary. If symptoms persist, call a physician.
<b>Ingestion</b>	Rinse mouth. Do not induce vomiting without medical advice. If symptoms persist, call a physician.
<b>Notes to physician</b>	Treat symptomatically. May cause sensitization of susceptible persons.

**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.
<b>Specific hazards arising from the chemical</b>	Thermal decomposition can lead to release of irritating gases and vapors In the event of fire and/or explosion do not breathe fumes May cause sensitization by inhalation and skin contact
<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. 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.
<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>	Use personal protective equipment. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically and collect in suitable container for disposal. Avoid dust formation. Clean contaminated surface thoroughly. Soak up with inert absorbent material. Dam up. Pick up and transfer to properly labeled containers. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water. Take precautionary measures against static discharges.
<b>Other information</b>	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. Face-shield.

**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**

<b>Appearance</b>	White.	<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>Water Solubility VALUE</b>	Soluble in water
<b>Explosion limits</b>	No information available	<b>Evaporation rate</b>	No information available
<b>Specific Gravity</b>	no data available	<b>VOC Content(%)</b>	not applicable
<b>solubility</b>	No information available.		
<b>Vapor density</b>	no data available		

**10. STABILITY AND REACTIVITY**

<b>Stability</b>	Stable under recommended storage conditions.
<b>Incompatible products</b>	None known based on information supplied.
<b>Conditions to avoid</b>	None known based on information supplied.
<b>Hazardous decomposition products</b>	Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ). Nitrogen oxides (NO <sub>x</sub> ). Hydrogen bromide.
<b>Hazardous polymerization</b>	Hazardous polymerization does not occur.

**11. TOXICOLOGICAL INFORMATION**

Acute toxicity

<b>Product Information</b>	Product is toxic by ingestion. Irritating to skin, eyes and / or respiratory tract. May cause sensitization of susceptible persons.
<b>Inhalation</b>	May cause irritation of respiratory tract May cause allergy or asthma symptoms or breathing difficulties if inhaled
<b>Eye contact</b>	May cause irritation
<b>Skin contact</b>	May cause irritation May cause sensitization by skin contact
<b>Ingestion</b>	Toxic if swallowed Ingestion may cause irritation to mucous membranes

Chronic toxicity

<b>Chronic toxicity</b>	Prolonged or repeated exposure increases the risk Possible risks of irreversible effects Avoid repeated exposure Repeated contact may cause allergic reactions in very susceptible persons
<b>Sensitization</b>	As a precaution the product should be treated as a sensitizer.
<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. (Neostigmine bromide)
<b>Hazard class</b>	6.1
<b>UN/ID No</b>	2811
<b>Packing group</b>	III
<b>IATA</b>	Excepted Quantity
<b>UN/ID No</b>	2811
<b>Proper shipping name</b>	Toxic solid, organic, n.o.s. (Neostigmine bromide)
<b>Hazard class</b>	6.1
<b>Packing group</b>	III
<b>ADR</b>	Excepted Quantity
<b>Proper shipping name</b>	Toxic solid, organic, n.o.s. (Neostigmine bromide)
<b>Hazard class</b>	6.1
<b>UN/ID No</b>	2811
<b>Packing group</b>	III

**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

H301 - Toxic if swallowed H315 - Causes skin irritation H317 - May cause an allergic skin reaction H319 - Causes serious eye irritation H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled H335 - May cause respiratory irritation

### Hazard statements

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**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**