

## SAFETY DATA SHEET

Date of Original Issue: 18OCT2021    Revision Number: 3    Revision Date: 15MAR2024

### SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

#### 1.1. Product identifier

**Product name:** Neostigmine Methylsulfate Injection

#### 1.2 Relevant identified uses of the substance or mixture

**Product Use:** Pharmaceuticals used as Neuromuscular blocking agents.

#### 1.3 Details of the responsible party of the safety data sheet

**Manufacturer**

Caplin Steriles Private Limited  
Survey No. 895 & 897, Guruvarajakamdigai  
Tamil Nadu 601 201  
India  
+91 4467901901 / 02 / 03

**Distributor**

Xellia Pharmaceuticals USA LLC  
2150 East Lake Cook Road  
Buffalo Grove, IL 60089  
USA  
+1 833-657-3519

Email address for the competent person responsible for the safety data sheet: sales@xellia.com

#### 1.4 Emergency telephone number

Poison Control Center (USA): +1 877 800 5553  
CHEMTREC (USA Transportation): +1 800 424 9300  
CANUTREC (Canadian Transportation): +1 613 996 6666  
EU: <http://apps.who.int/poisoncentres/>

### SECTION 2: Hazards Identification

#### 2.1. Classification of the substance or mixture

This chemical is not considered hazardous according to the OSHA Hazard Communication Standard 2019 (29 CFR 1910.1200)

#### 2.2. Label elements

None

#### 2.3. Other hazards

The substance is not considered PBT/vPvB, or endocrine disruptive according to the criteria in the CLP regulation.

### SECTION 3: Composition/Information on Ingredients

#### 3.2. Mixtures

Active component	CAS #	EU/List #
Neostigmine Methylsulfate	51-60-5	200-109-5

**REACH #:** exempted

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## SECTION 4: First Aid Measures

### 4.1. Description of first aid measures

- Eye contact:** Flush eyes for 15 minutes with plenty of water. Get medical attention immediately.
- Skin contact:** Remove contaminated clothing and clean before reuse. Wash all exposed areas of skin with plenty of soap and water. Get medical attention if irritation or rash develops.
- Ingestion:** Do not induce vomiting. Call a physician or poison control center. Do not give anything by mouth to an unconscious person. Immediately transport to a medical care facility and see a physician.
- Inhalation:** Move individual to fresh air. Get medical attention if breathing difficulty occurs. If not breathing, provide artificial respiration assistance (mouth-to-mouth) and call a physician immediately.

### 4.2. Most important symptoms and effects, both acute and delayed

**Symptoms and Effects of Exposure:** For information on potential signs and symptoms of exposure, See Section 2 - Hazards Identification and/or Section 11 - Toxicological Information.

**Medical Conditions Aggravated by Exposure:** None

### 4.3. Indication of any immediate medical attention and special treatment needed

**In case of discomfort or unconsciousness:** Show this safety data sheet to a physician or emergency center, treat symptomatically.

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## SECTION 5: Firefighting Measures

### 5.1. Extinguishing media

Water, carbon dioxide, dry chemical, foam, or other alternatives.

### 5.2. Special hazards arising from the substance or mixture

- General hazards:** May be combustible at high temperature. Fine particles (such as dust and mists) may fuel fires/explosions.
- Hazardous combustion products:** Emits toxic fumes of carbon monoxide, carbon dioxide, nitrogen oxides, sulfur oxides and other sulfur-containing compounds.
- Unsuitable extinguishing media:** None
- Specific methods:** Not available

### 5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

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## SECTION 6: Accidental Release Measures

### 6.1. Personal precautions, protective equipment, and emergency response

Wear personal protective equipment to avoid exposure – see section 8. Avoid generation of dust.

### 6.2. Environmental precautions

**Water spill:** Do not empty into drains.

**Release notes:** If the spill could potentially enter any waterway, including intermittent dry creeks, contact the local authorities. In the USA, contact the USA Coast Guard National Response Center toll free +1 800 424 8802.

### 6.3. Methods and materials for containment and cleaning up

Absorb spilled product with sand or similar absorbing material. Place waste product into labelled container.

### 6.4. References to other sections

See section 1 for emergency contact information, section 8 for personal protective equipment details, and section 13 for disposal information.

## SECTION 7: Handling and Storage

### 7.1. Precautions for safe handling

**For large quantities:** Engineering controls are recommended to ensure adequate ventilation such that exposures do not exceed TWA for an eight-hour exposure. Adequate eye protection is always required.

**For small quantities:** Keep the bottle tightly closed when not in use.

**Work hygienic practices:** Facilities storing or using this material should be equipped with an emergency eyewash and safety shower. Good personal hygiene practices should always be followed.

### 7.2. Conditions for safe storage, including any incompatibilities

Store securely, inaccessible for unauthorized persons. Store at 20-25°C (68 - 77°F) in original, unopened package or container.

### 7.3. Specific end uses

See section 1.

## SECTION 8: Exposure Controls/Personal Protection

### 8.1. Control parameters

OSHA'S hazardous components (29 CFR 1910.1020) EXPOSURE LIMITS AND GUIDELINES

	<u>OSHA PEL</u>		<u>ACGIH TLV</u>		<u>OTHER OEL (TWA)</u>	
	<u>ppm</u>	<u>mg/m<sup>3</sup></u>	<u>ppm</u>	<u>mg/m<sup>3</sup></u>	<u>ppm</u>	<u>mg/m<sup>3</sup></u>
Neostigmine Methylsulfate (CAS # 51-60-5)	N/A	N/A	N/A	N/A	N/A	N/A

**Other country exposure limits:** Not listed.

This product does not contain any hazardous materials with occupational exposure established by the region-specific regulatory bodies.

OEL calculated by Fastrac: 2 µg/m<sup>3</sup>

### 8.2. Exposure controls

#### PERSONAL PROTECTIVE EQUIPMENT:

**Eyes and face:** Wear safety glasses with side shields or goggles as appropriate when handling this material.

**Skin:** Chemical resistant gloves (nitrile or latex) and body covering.

**Respiratory:** Use an approved respirator suitable to provide level of protection required.

**Comments:** This product may cause kidney damage from overexposure to bacitracin. Under conditions of overexposure, this product may be hazardous.

## SECTION 9: Physical and Chemical Properties

### 9.1. Information on basic physical and chemical properties

- (a) **Physical state:** Liquid
- (b) **Color:** Clear, colorless
- (c) **Odor:** Not available
- (d) **Melting point/freezing point:** Below 0°C
- (e) **Boiling point or initial boiling point and boiling range:** Above 100°C
- (f) **Flammability:** Not flammable.
- (g) **Lower and upper explosion limit:** Not applicable
- (h) **Flash point:** Not applicable
- (i) **Auto-ignition temperature:** Not available
- (j) **Decomposition temperature:** Not available
- (k) **pH:** 5.5
- (l) **Kinematic viscosity:** Like water
- (m) **Solubility:** Yes.
- (n) **Partition coefficient n-octanol/water (log value):** Not available
- (o) **Vapor pressure:** Not available
- (p) **Density and/or relative density:** Above 1 g/cm<sup>3</sup>
- (q) **Relative vapor density:** Not available
- (r) **Particle characteristics:** Solution

### 9.2. Other information:

Not available.

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## SECTION 10: Stability and Reactivity

### 10.1. Reactivity

No data available.

### 10.2. Chemical stability

Stable under recommended storage conditions.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization has not been reported.

### 10.4. Conditions to avoid

Incompatible materials, excess heat, alkaline materials, strong oxidants.

### 10.5. Incompatible materials

Strong oxidants.

### 10.6. Hazardous decomposition products

Nitrogen oxides, carbon monoxide, oxides of sulfur, irritating and toxic fumes and gases, carbon dioxide.

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## SECTION 11: Toxicological Information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute dermal LD50:	Not determined.		
Acute oral LD50:	7.5 – 10 mg/kg (mouse)		
Acute inhalation LC50:	Not determined.		
Eye effects:	Irritant		
Skin effects:	Irritant		
Sensitization:	Possible allergic skin rash.		
Target organ:	Respiratory System		
Carcinogenicity:	Not determined.		
	Listed by IARC: No	Listed by NTP: No	Listed by OSHA: No
Mutagenicity:	Not determined.		
Reproductive effects:	Not determined.		
Teratogenic effects:	Not determined.		

### 11.2. Information on other hazard

Not available

## SECTION 12: Ecological Information

### 12.1. Toxicity

No applicable information found. Releases to the environment should be avoided.

### 12.2 Persistence and degradability

No applicable information found.

### 12.3. Bio-accumulative potential

No applicable information found.

### 12.4. Mobility in soil

No applicable information found.

### 12.5. Results of PBT and vPvB assessment

The substance is not considered PBT/vPvB according to criteria in Annex XIII.

### 12.6. Endocrine disrupting properties

No such properties are known to the substance.

### 12.7. Other adverse effects

The substance is possibly harmful for the aquatic environment, due to its antibiotic properties.

## SECTION 13: Disposal Considerations

**13.1. Waste treatment methods:** Do not empty into drain. Dispose of any cleanup materials and waste residue according to applicable laws and regulations.

## SECTION 14: Transport Information

### 14.1. UN Number or ID number

Not Regulated.

### 14.2. UN proper shipping name

Not Regulated.

### 14.3. Transport hazard class(es)

Not Regulated.

### 14.4. Packing group

Not Regulated.

### 14.5. Environmental hazards

Not Regulated.

### 14.6. Special precautions for user

Not Regulated.

### 14.7. Maritime transport in bulk according to IMO instruments

Not relevant.

USA DOT (DEPARTMENT OF TRANSPORTATION)

**Proper Shipping Name:** Not regulated

CANADA TRANSPORT OF DANGEROUS GOODS

**Proper Shipping Name:** Not regulated.

AIR (ICAO/IATA)

**Proper Shipping Name:** Not regulated.

VESSEL (IMO/IMDG)

**Proper Shipping Name:** Not regulated.

EUROPEAN TRANSPORTATION:

**ADR/RID HAZARD CLASSIFICATION:** Not Regulated.

U.S. CUSTOMS HARMONIZATION NUMBER: Not Available.

## SECTION 15: Regulatory Information

### 15.1. Safety, health, and environmental regulation/legislation specific for the substance or mixture

#### EUROPEAN UNION

**Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work:**

Must not be used by persons under 18 years of age.

**Council Directive 92/85/EEC of 19 October 1992 on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding:**

The employer shall assess the working conditions and, if there is any risk to the safety or health and any effects on the pregnancy or breastfeeding of workers, take the necessary measures to adjust the working conditions.

**Implementation of directive 2001/82/EC of the European Parliament and of the council of 6 November 2001 in the Community code relating to veterinary medical products:**

Denmark: The Danish Medicines Agency (Lægemiddelstyrelsen) must be notified that this substance is produced, imported, exported, stored, sold, delivered, packed, possessed or in other ways handled in Denmark (Bekendtgørelse nr. 1226 af 7 December 2005 om omgang med visse stoffer og produkter hvis indhold kan anvendes som lægemidler til dyr.).

For other countries: Please contact national authorities regarding notification of the substance.

#### UNITED STATES FEDERAL REGULATIONS

**Superfund Amendments and Reauthorization Act (SARA) Title III 311/312 hazard categories:**

**Fire:** No      **Pressure generating:** No      **Reactivity:** No      **Acute:** No      **Chronic:** No

**313 Reportable Ingredients:** Not Listed

**Title III notes:**

**Comprehensive Response, Compensation, and Liability Act (CERCLA)**

**CERCLA RQ:** Not listed

**Toxic Substances Control Act (TSCA)**

**TSCA Regulatory:** Exempt

**National Response Center:** US Coast Guard National Center Response Telephone  
+1 800 424 8802.

#### UNITED STATES STATE REGULATIONS

**California Proposition 65:** This product does not contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

#### CANADA

Workplace Hazardous Material Information System (WHMIS) hazard symbol and classification

**WHMIS Controlled:** Not regulated.

**Canadian Environmental Protection Act:** Not listed

#### 15.2. Chemical safety assessment

No CSR is compiled because the substance is exempted.

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### SECTION 16: Other Information

**Reason for issue:** Update because the product is a mixture and include 2020/878 EU Commission regulation.

**Contact Information:** See Section 1.

**Revision summary:** Third issue.

**Disclaimer:** Information given herein is offered in good faith as accurate, but without guarantee. Conditions of use and suitability of the product for uses are beyond our control; all risks of use of the product are therefore assumed by the user. Nothing is intended as a recommendation for uses that infringe valid patents or as extending license under valid patents. Appropriate warnings and safe handling procedures should be provided to handlers and users.

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