

Material Name: PROSTIGMIN(R) (10 ml vials - 1 mg/ml) Page: 1  
Material Code: 75229 Approved: 05/09/95  
MSDS Number : m-011150.asc

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#### MATERIAL SAFETY DATA SHEET

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#### SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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Material Name .....: PROSTIGMIN(R) (10 ml vials - 1 mg/ml)  
Inventory Code .....: 75229  
TSCA Status .....: FDA Exemption - Not on Inventory.  
Therapeutic Category: Anticholinesterase agent

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#### SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

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Ingredient Name	CAS Number	Concentration %
Neostigmine methylsulfate	51-60-5	0.05-0.1

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#### SECTION 3. HAZARDS IDENTIFICATION

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##### EMERGENCY OVERVIEW

Physical State .....: Liquid.

##### POTENTIAL HEALTH EFFECTS

Relevant Routes of

Exposure .....: Skin Contact, Eye Contact, Ingestion.  
Target Organs .....: Respiratory System, Cardiovascular System,  
Gastrointestinal System, Central Nervous System, Renal  
System, Immune System.

##### Acute Effects

General .....: May cause central nervous system effects such as headache, dizziness, drowsiness, fatigue, and lack of muscular coordination. May cause gastrointestinal effects such as nausea, vomiting, diarrhea, constipation, cramps, and loss of appetite. May cause cardiovascular effects such as increase or decrease in blood pressure, irregular heartbeat, chest pain, and cardiac arrest. May cause respiratory effects such as difficulty in breathing, coughing, wheezing, irritation (inflammation) and respiratory arrest. May cause musculoskeletal effects such as muscle weakness or pain and skeletal abnormalities. May cause renal (kidney) system effects such as urine retention, increase or decrease in urine production, painful urination, and presence of blood in urine. May cause allergic reactions.

Chronic Effects ....: No adverse effects known.

Carcinogenicity ....: Not listed by NTP, IARC, or OSHA.

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#### SECTION 3. HAZARDS IDENTIFICATION (Continued. . .)

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##### Conditions

Aggravated .....: Hypersensitivity to this material. Kidney conditions and/or impaired renal function. Gastrointestinal conditions. Asthma.

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#### SECTION 4. FIRST AID MEASURES

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Inhalation .....: Remove to fresh air. If discomfort occurs or persists,

get medical attention.

Skin Contact .....: Remove contaminated clothing and shoes. Flush skin with plenty of water. If irritation occurs or persists, get medical attention. Wash clothing and shoes before reuse.

Eye Contact .....: Immediately flush eyes with plenty of water. If irritation occurs or persists, get medical attention.

Ingestion .....: If large quantities of this material are swallowed, get medical attention immediately. Do not induce vomiting unless directed by medical personnel. Never give anything by mouth to an unconscious person.

Notes to Physician : Administer atropine sulfate as an antidote.

## SECTION 5. FIRE FIGHTING MEASURES

Flash Point .....: Not Applicable  
Extinguishing Media : Water, Carbon Dioxide, Dry Chemical, Foam.  
Unusual Fire and  
Explosion Hazards ...: Toxic emissions may be given off in a fire. See  
Decomposition Products in Section 10. Stability and  
Reactivity.

Fire Fighting  
Instructions .....: Wear NIOSH/MSHA approved positive pressure, self  
contained breathing apparatus and full protective turn  
out gear. Use caution in approaching fire. Use water  
to keep fire exposed containers cool.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

**Spill Clean Up**  
**Procedures . . . . .:** Use proper personal protective equipment and clothing specified in Section 8-Exposure Controls/Personal Protection. Shut off the source of the spill or leak if it is safe to do so. Absorb small spills with absorbent material. Dike large spills and pump into metal drums or absorb with absorbent material. Put saturated absorbent material into a suitable labeled open head drum. Secure the drum cover and move the container to a safe holding area. Clean spill area thoroughly.

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SECTION 6. ACCIDENTAL RELEASE MEASURES (Continued. . .)

Treatment and Disposal .....: Decontaminate equipment. Dispose of protective clothing with the spilled material. Dispose of in accordance with recommendations in Section 13 Disposal Considerations.

Reporting Requirements .....: The United States Environmental Protection Agency (USEPA) has not established a Reportable Quantity (RQ) for releases of this material. In New Jersey, report all releases which are likely to endanger the public health, harm the environment or cause a complaint to the NJDEPE Hotline (1-609-292-5560) and to local officials. State and local regulations vary and may impose additional reporting requirements.

## SECTION 7. HANDLING AND STORAGE

**Handling & Storage**  
**Precautions .....**: Avoid contact with eyes, skin and clothing.  
                          Avoid breathing vapor or mist.  
                          Use with adequate ventilation.  
When handling, use proper personal protective equipment  
specified in section 8.  
Wash thoroughly after handling.  
Keep container tightly closed when not in use.  
Store in a dry area at room temperature.

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## SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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### ENGINEERING CONTROLS

Ventilation .....: General room ventilation is adequate unless the process generates mist or vapor.

### PERSONAL PROTECTION

Respirator Type(s) ..: None Recommended.

Conditions for Use ..: Under normal conditions of use, respiratory protection is not expected to be necessary. OSHA considers effective engineering controls to be the primary means to control worker exposure. Respiratory protection should not substitute for feasible engineering controls. Whenever respiratory protection is used, a complete respirator program should be developed in accordance with OSHA Subpart I (29CFR1910.134) requirements.

Glove Materials ....: Any plastic or rubber glove.

Conditions for Use ..: Gloves are required if there is a potential for skin contact.

Skin Protection ....: None required under normal and foreseeable conditions of use. Consult the protective clothing manufacturer, supplier and/or industrial hygienist.

Eye Protection ....: Safety Glasses Required, Safety Goggles Recommended.

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## SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION (Continued. . .)

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### OTHER CONTROL MEASURES

#### Additional

Protective Measures : Work clothing should be removed in a chanceroom on site and laundered professionally. Employees should shower and change into street clothes before leaving the facility. Provide safety showers and eyewash stations in the work area.

### EXPOSURE LIMITS

There are no exposure limits specified either for this material or for any of its ingredients.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

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Physical State ....: Liquid.

Pure/Mixture .....: Mixture.

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## SECTION 10. STABILITY AND REACTIVITY

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Stability .....: Normally stable even under fire exposure conditions and not water reactive

Conditions to Avoid : None Known

Decomposition

Products .....: Carbon monoxide, carbon dioxide, oxides of nitrogen, oxides of sulfur

Polymerization .....: No

Conditions of

Polymerization .....: Will not occur.

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## SECTION 11. TOXICOLOGICAL INFORMATION

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PROSTIGMIN(R) (10 ml vials - 0.5 mg/ml)

Acute Oral, Single Dose, Rat: >500 mg/kg

Summary: Acute oral LD<sub>50</sub> (rat) is greater than 500 mg/kg body weight which classifies this material as moderately toxic orally, under the study conditions utilized.

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## SECTION 12. ECOLOGICAL INFORMATION

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No ecological data available on this material.

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#### SECTION 13. DISPOSAL CONSIDERATIONS

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##### Disposal

Recommendations ....: This material is suitable for incineration. These recommendations are based on the product as shipped. Use, processing, alteration or contamination may affect these disposal recommendations. State, local or site restrictions affecting the available proper disposal options may vary.  
RCRA Waste # .....: Not regulated under RCRA  
Empty Containers ....: Empty containers must be triple rinsed prior to disposal, recycling, or reuse.

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#### SECTION 14. TRANSPORTATION INFORMATION

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Enforcement Agency .. : US Dept. of Transportation  
Country/Community .. : USA  
Proper Ship. Name .. : Non-regulated

Enforcement Agency .. : International Air Transport Association  
Country/Community .. : International  
Proper Ship. Name .. : Non-regulated

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#### SECTION 15. REGULATORY INFORMATION

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Law/Regulation ....: Hazardous Chemical Reporting: Community Right-To-Know  
40CFR370  
Common Name .....: SARA Title III Section 312 - Hazardous Chemical Inventory  
Enforcement Agency .. : Environmental Protection Agency (EPA)  
Governing Authority : USA  
Criteria Met .....: Acute

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#### SECTION 16. OTHER INFORMATION

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Additional Information .....: NFPA RATING: These ratings are based on NFPA Code 704 and are intended for use by emergency personnel to determine the immediate hazards of a material.  
....Health 2  
....Fire 0  
....Reactivity 0

#### APPROVAL INFORMATION

Preparer .....: Hesham M. Soliman  
Approver .....: Corporate Environmental & Safety Affairs  
Approval Date .....: 05/09/95  
Reason For Issue ...: New

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