

**REGION I EMERGENCY MEDICAL SERVICES  
STANDING MEDICAL ORDERS  
BLS**

**SMO: Methyl Isocyanate  
(isocyanomethane, isocyanatomethane, methylcarbylamine, MIC)**

Revised Date: \_\_\_\_\_

**Overview: Methyl isocyanate (MIC) has multiple uses in the pesticide and plastics industries. It usually is handled and transported as a liquid, which is flammable and explosive. MIC evaporates rapidly in the air; the most common route of exposure is inhalational. It has a pungent odor, however, health effects have been reported below the odor threshold; therefore, lack of odor is not a reliable indicator of non-exposure. MIC is 1.4 times heavier than air and will “pool” in low lying areas. All suspected or confirmed cases of MIC poisoning must be reported to the local department of public health and the Illinois Department of Public Health. There is no specific antidotal therapy for MIC poisoning.**

**INFORMATION NEEDED**

- \_\_\_ History of present illness
- \_\_\_ How many patients involved
- \_\_\_ MIC concentrations
- \_\_\_ What decontamination procedures, if any, are being undertaken

**OBJECTIVE FINDINGS**

- \_\_\_ • **Skin: Irritation, burning sensation, chemical burns**
- \_\_\_ • **HEENT: May cause permanent damage with cataract formation of chronic blepharitis**
- \_\_\_ • **Pulmonary: Low concentrations may produce mild respiratory irritation. High concentrations can cause cough, dyspnea, increased secretions, chest pain, tightness and asthmatic episodes. Pulmonary edema and/or ARDS may develop in some cases**
- \_\_\_ • **CNS: Acute lung injury-induced hypoxia may produce CNS depression**
- \_\_\_ • **GI: GI irritation, vomiting and/or defecation may occur**
- \_\_\_ • **Children exposed to the same levels of MIC as adults may receive larger doses because they have relatively greater lung surface area; body-weight ratios and higher minute volumes: weight ratios. In addition, they may be exposed to higher levels than adults in the same location because of their short stature and higher levels of MIC are found nearer to the ground**

**BLS**

- \_\_\_ Patients exposed only to MIC gas pose no risk of secondary contamination and need only removal of clothing
- \_\_\_ Patients whose skin or clothing is contaminated with liquid MIC can secondarily contaminate care personnel by direct contact or through off-gassing of vapors. These patients must have clothing removed and be decontaminated with soap and water
- \_\_\_ Gloves and masks should be used by all EMS personnel
- \_\_\_ Assess the patient for any medical or trauma issues

- \_\_\_ Provide supplemental oxygenation by nasal cannula at 2-6 LPM or by non-rebreather mask at 10-15 LPM as needed
- \_\_\_ Assist ventilation as needed
- \_\_\_ Assess the patient' airway and provide a manual or mechanical airway if the patient cannot protect their airway
- \_\_\_ Be prepared to suction the patient's airway
- \_\_\_ Vital signs
- \_\_\_ Call for ILS or ALS support for any respiratory problems with the patient
- \_\_\_ Albuterol nebulizer treatment if the patient is wheezing or displaying signs of bronchospasm
- \_\_\_ Pulse oximeter

Documentation of adherence to protocol:

- \_\_\_ Decontamination measures
- \_\_\_ History of present illness
- \_\_\_ Airway maneuvers, if they were needed
- \_\_\_ Oxygen provided

<b>Medical Control Contact Criteria</b>
---

- |  |
|--|
| <ul style="list-style-type: none"><li>___ • Contact Medical Control as soon as possible</li><li>___ • Contact Medical Control to request ILS or ALS patient care support, particularly if airway compromise or respiratory difficulty is encountered from the patient</li><li>___ • Contact Medical Control prior to administering Albuterol</li></ul> |
|--|

**REGION I EMERGENCY MEDICAL SERVICES  
STANDING MEDICAL ORDERS  
ALS**

**SMO: Methyl Isocyanate** **Revised Date:**  
(isocyanomethane, isocyanathomethane, methylcarbylamine, MIC)

**Overview: Methyl isocyanate (MIC) has multiple uses in the pesticide and plastics industries. It usually is handled and transported as a liquid, which is flammable and explosive. MIC evaporates rapidly in the air; the most common route of exposure is inhalational. It has a pungent odor, however, health effects have been reported below the odor threshold; therefore, lack of odor is not a reliable indicator of non-exposure. MIC is 1.4 times heavier than air and will “pool” in low lying areas. All suspected or confirmed cases of MIC poisoning must be reported to the local department of public health and the Illinois Department of Public Health. There is no specific antidotal therapy for MIC poisoning.**

**INFORMATION NEEDED**

- \_\_\_ History of present illness
- \_\_\_ How many patients involved
- \_\_\_ MIC concentrations
- \_\_\_ What decontamination procedures, if any, are being undertaken

**OBJECTIVE FINDINGS**

- \_\_\_ • **Skin: Irritation, burning sensation, chemical burns**
- \_\_\_ • **HEENT: May cause permanent damage with cataract formation of chronic blepharitis**
- \_\_\_ • **Pulmonary: Low concentrations may produce mild respiratory irritation. High concentrations can cause cough, dyspnea, increased secretions, chest pain, tightness and asthmatic episodes. Pulmonary edema and/or ARDS may develop in some cases**
- \_\_\_ • **CNS: Acute lung injury-induced hypoxia may produce CNS depression**
- \_\_\_ • **GI: GI irritation, vomiting and/or defecation may occur**
- \_\_\_ • **Children exposed to the same levels of MIC as adults may receive larger doses because they have relatively greater lung surface area; body-weight ratios and higher minute volumes: weight ratios. In addition, they may be exposed to higher levels than adults in the same location because of their short stature and higher levels of MIC are found nearer to the ground**

**ALS**

- \_\_\_ Patients exposed only to MIC gas pose no risk of secondary contamination and need only removal of clothing
- \_\_\_ Patients whose skin or clothing is contaminated with liquid MIC can secondarily contaminate care personnel by direct contact or through off-gassing of vapors. These patients must have clothing removed and be decontaminated with soap and water
- \_\_\_ Gloves and masks should be used by all EMS personnel

- \_\_\_ Assess the patient for any medical or trauma issues
- \_\_\_ Provide supplemental oxygenation by nasal cannula at 2-6 LPM or by non-rebreather mask at 10-15 LPM as needed
- \_\_\_ Assist ventilation as needed
- \_\_\_ Assess the patient' airway and provide a manual or mechanical airway if the patient cannot protect their airway
- \_\_\_ Be prepared to suction the patient's airway
- \_\_\_ Vital signs
- \_\_\_ IV of N.S.
- \_\_\_ Albuterol nebulizer treatment if the patient is displaying signs of wheezing or bronchospasm
- \_\_\_ Cardiac monitor
- \_\_\_ Pulse oximeter

Documentation of adherence to protocol:

- \_\_\_ Decontamination measures
- \_\_\_ History of present illness
- \_\_\_ Airway maneuvers, if they were needed
- \_\_\_ Oxygen provided
- \_\_\_ Medications provided
- \_\_\_ Cardiac rhythm strip

**Medical Control Contact Criteria**

- \_\_\_ • Contact Medical Control as soon as possible
- \_\_\_ • Contact Medical Control prior to giving an Albuterol nebulizer treatment