



THE POWER OF THREE<sup>3</sup>

**PHARMCO-AAPER**

AND COMMERCIAL ALCOHOLS

**Product Information (203) 740-3471 / Emergency Assistance CHEMTREC 1-800-424-9300**

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## **MATERIAL SAFETY DATA SHEETS**

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### **Section 1 - Product and Company Information**

Product Name N-ACETYLMORPHOLINE

### **Section 2 - Composition/Information on Ingredient**

Substance Name CAS # SARA 313

4-ACETYLMORPHOLINE 1696-20-4 No

Formula C<sub>6</sub>H<sub>11</sub>NO<sub>2</sub>

Synonyms N-Acetylmorfolin (Czech) \* N-Acetylmorpholine \* 4-Acetylmorpholine

### **Section 3 - Hazards Identification**

#### **EMERGENCY OVERVIEW**

Irritant. Irritating to eyes, respiratory system and skin.  
For additional information on toxicity, please refer to Section 11.

### **Section 4 - First Aid Measures**

#### **ORAL EXPOSURE**

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

#### **INHALATION EXPOSURE**

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

#### **DERMAL EXPOSURE**

In case of contact, immediately wash skin with soap and copious amounts of water.

#### **EYE EXPOSURE**

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

#### **Section 5 - Fire Fighting Measures**

##### FLASH POINT

251.6 °F 122 °C Method: closed cup

##### AUTOIGNITION TEMP N/A

##### FLAMMABILITY N/A

##### EXTINGUISHING MEDIA

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

##### FIREFIGHTING

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific Hazard(s): Emits toxic fumes under fire conditions.

##### EXPOSURE HAZARD(S)

Material: Irritant.

#### **Section 6 - Accidental Release Measures**

##### PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

##### METHODS FOR CLEANING UP

Cover with dry lime or soda ash, pick up, keep in a closed container, and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

#### **Section 7 - Handling and Storage**

##### HANDLING

User Exposure: Avoid contact and inhalation. Do not get in eyes, on skin, on clothing.

##### STORAGE

Suitable: Keep tightly closed. Store in a cool dry place.

#### **Section 8 - Exposure Controls / PPE**

##### ENGINEERING CONTROLS

Safety shower and eye bath. Mechanical exhaust required.

##### PERSONAL PROTECTIVE EQUIPMENT

Respiratory: Use respirators and components tested and under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.

Hand: Rubber gloves.

Eye: Chemical safety goggles.

##### GENERAL HYGIENE MEASURES

Wash contaminated clothing before reuse. Wash thoroughly after handling.

#### **Section 9 - Physical/Chemical Properties**

Appearance Color: Very faintly yellow

Form: Clear liquid

Property Value At Temperature or Pressure

Molecular Weight 129.16 AMU  
pH N/A  
BP/BP Range 240.0 - 245.0 °C  
MP/MP Range 14 °C  
Freezing Point N/A  
Vapor Pressure N/A  
Vapor Density N/A  
Saturated Vapor Conc. N/A  
SG/Density 1.115 g/cm<sup>3</sup>  
Bulk Density N/A  
Odor Threshold N/A  
Volatile% N/A  
VOC Content N/A  
Water Content N/A  
Solvent Content N/A  
Evaporation Rate N/A  
Viscosity N/A  
Surface Tension N/A  
Partition Coefficient N/A  
Decomposition Temp. N/A  
Flash Point 251.6 °F 122 °C Method: closed cup  
Explosion Limits N/A  
Flammability N/A  
Autoignition Temp N/A  
Refractive Index 1.484  
Optical Rotation N/A  
Miscellaneous Data N/A  
Solubility N/A  
N/A = not available

## **Section 10 - Stability and Reactivity**

### STABILITY

Materials to Avoid: Strong oxidizing agents.

### HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide,  
Nitrogen oxides.

## **Section 11 - Toxicological Information**

### ROUTE OF EXPOSURE

Skin Contact: Causes skin irritation.

Multiple Routes: May be harmful by inhalation, ingestion, or skin absorption. Vapor or mist is irritating to the eyes, mucous membranes, and upper respiratory tract.

### SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

### TOXICITY DATA

Oral Rat 6130 mg/kg

LD50

Skin

Rabbit

7500 UL/KG

LD50

## **Section 12 - Ecological Information**

No data available.

## **Section 13 - Disposal Considerations**

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION  
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 environmental regulations.

## **Section 14 - Transport Information**

DOT

Proper Shipping Name: None

Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

IATA

Non-Hazardous for Air Transport: Non-hazardous for air transport.

## **Section 15 - Regulatory Information**

EU ADDITIONAL CLASSIFICATION

Symbol of Danger: Xi

Indication of Danger: Irritant.

R: 36

Risk Statements: Irritating to eyes.

S: 26-36

Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

US CLASSIFICATION AND LABEL TEXT

Indication of Danger: Irritant.

Risk Statements: Irritating to eyes, respiratory system and skin.

Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves and eye/face protection.

UNITED STATES REGULATORY INFORMATION

SARA LISTED: No

TSCA INVENTORY ITEM: Yes

CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No

NDSL: Yes

## **Section 16 - Other Information**

The information contained herein is based on data considered to be accurate based on the material as packaged. However, no warranty is expressed regarding the accuracy of these data or the results to be obtained from the use thereof. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It is the user's obligation to determine the conditions of safe use of the product. While this MSDS is based on technical data judged to be reliable, PHARMCO-AAPER assumes not responsibility for the completeness or accuracy of the information contained herein.