

HARCROS CHEMICALS INC. -- 07029 MORPHOLINE -- 6810-00-419-4298

===== Product Identification =====

Product ID:07029 MORPHOLINE

MSDS Date:08/13/1993

FSC:6810

NIIN:00-419-4298

MSDS Number: BZLGT

=== Responsible Party ===

Company Name:HARCROS CHEMICALS INC.

Address:5200-SPEAKER ROAD

Box:2383

City:KANSAS CITY

State:KS

ZIP:66106-1095

Country:US

Info Phone Num:913-321-3131

Emergency Phone Num:800-424-

9300 CHEMTREC

Preparer's Name:GENE TURNER

CAGE:3H606

=== Contractor Identification ===

Company Name:HARCROS CHEMICALS INC.

Address:5200-SPEAKER ROAD

Box:2383

City:KANSAS CITY

State:KS

ZIP:66106-1095

Country:US

Phone:913-321-3131

CAGE:3H606

Company Name:HOC INDUSTRIES, INC

Address:3511 N. OHIO

Box:2609

City:WICHITA

State:KS

ZIP:67219

Country:US

Phone:316-838-4663

CAGE:0A9L8

===== Composition/Information on Ingredients =====

Ingred Name:MORPHOLINE

CAS:110-91-8

RTECS #:QD6475000

Fraction by Wt: 99%
Other REC Limits:NONE RECOMMENDED
OSHA PEL:S, 20 PPM
ACGIH TLV:S, 20 PPM; 9596

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===== Hazards Identification =====

LD50 LC50 Mixture:NONE SPECIFIED BY MANUFACTURER.
Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:CONTACT MAY CAUSE SEVERE IRRITATION OR
BURNS TO SKIN & EYES. SKIN ABSORPTION MAY BE HARMFUL. INGESTION MAY
CAUSE GI TRACT DAMAGE,
WEAKNESS, DROWSINESS, DEATH. INHALATION MAY
CAUSE RESPIRATORY IRRITATION; PROLONGED EXPOSURE MAY CAUSE
BRONCHITIS OR PNEUMONIA.
Explanation of Carcinogenicity:NO INGREDIENT OF A CONCENTRATION OF 0.1%
OR GREATER IS LISTED AS A CARCINOGEN OR SUSPECTED CARCINOGEN.
Effects of Overexposure:SKIN-BURNS, SEVERE IRRITATION, EDEMA,
BLISTERING. EYES-SEVERE IRRITATION, IRREVERSIBLE DAMAGE.
INHALED-COUGHING, PAIN. INGESTED-DROWSINESS, WEAKNESS, DEATH, GI
TRACT DAMAGE.
Medical Cond A
aggravated by Exposure:EYES, SKIN AND RESPIRATORY SYSTEM
DISORDERS.

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===== First Aid Measures =====

First Aid:IN ALL CASES GET MEDICAL ATTENTION. EYES-IMMEDIATELY FLUSH
WITH WATER FOR 15 MINUTES, LIFT LIDS. SKIN-REMOVE CONTAMINATED
CLOTHES. FLUSH WITH WATER. INHALED-REMOVE TO FRESH AIR. ADMINISTER
OXYGEN OR A RTIFICIAL RESPIRATION AS NEEDED. INGESTED-DO NOT INDUCE
VOMITING! IF CONSCIOUS, GIVE WATER. IF VOMITING OCCURS, KEEP HEAD
BELOW
HIPS.

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===== Fire Fighting Measures =====

Flash Point Method:TCC
Flash Point:95.0F,35.0C
Lower Limits:1.8
Upper Limits:10.8
Extinguishing Media:CARBON DIOXIDE, DRY CHEMICAL, FOAM.
Fire Fighting Procedures:EVACUATE NON-ESSENTIAL PERSONNEL. WEAR
SELF-CONTAINED BREATHING APPARATUS AND FULL FIRE FIGHTER'S
PROTECTIVE GEAR. USE WATER TO COOL FIRE EXPOSED CONTAINERS.
Unusual Fire/Explosion Hazard:HOT ORGANIC CHEMICAL VAPORS MAY
SPONTANEOUSLY IGNITE OR EXP

LODE WHEN MIXED WITH AIR, EVEN AT
TEMPERATURES BELOW AUTOIGNITION TEMPERATURE.

===== Accidental Release Measures =====

Spill Release Procedures:EVACUATE ALL NON-ESSENTIAL PERSONNEL.
ELIMINATE ALL SOURCES OF IGNITION. WEAR PROPER PERSONAL PROTECTIVE
GEAR. STOP LEAK IF FEASIBLE. CONTAIN SPILL. RECOVER FREE PRODUCT.
ABSORB REMAINDER & PLACE IN CONTAINER. KEEP OUT OF
SEWERS/WATERWAYS.

Neutralizing Agent:DILUTE ACETIC ACID OR DILUTE HYDROCHLORIC ACID

===== Handling and Storage =====

Handling and Storage Precautions:STORE IN A COOL, DRY PLACE. KEEP
CONTAINER CLOSED WHEN NOT IN USE. KEEP OUT OF REACH OF CHILDREN.
WEAR PROPER PROTECTIVE GEAR WHEN HANDLING.

Other Precautions:DO NOT BREATHE VAPOR OR MIST. DO NOT GET IN EYES, ON
SKIN OR CLOTHING. DO NOT SWALLOW. WASH THOROUGHLY AFTER HANDLING.
KEEP HEAT, FIRE, SPARKS AWAY. THIS CONTAINER HAZARDOUS WHEN
EMPTIED. ALL LABELED PRECAUTIONS MUST
BE FOLLOWED.

===== Exposure Controls/Personal Protection =====

Respiratory Protection:IF ENGINEERING CONTROLS FAIL OR NON-ROUTINE USE
OR AN EMERGENCY OCCURS; WEAR AN MSHA/NIOSH APPROVED RESPIRATOR WITH
ORGANIC VAPOR CARTRIDGE OR AN AIR-SUPPLIED RESPIRATOR OR SCBA, AS
REQUIRED. USE IAW 29 CFR 1910.134.

Ventilation:USE EXPLOSION-PROOF ADEQUATE MECHANICAL VENTILATION OR
LOCAL EXHAUST TO MAINTAIN EXPOSURE BELOW TLV(S).

Protective Gloves:IMPERVIOUS-RUBBER, PVC, N
EOPRENE.

Eye Protection:SAFETY GLASSES/CHEMICAL SPLASH GOGGLES.

Other Protective Equipment:EYE WASH STATION & SAFETY SHOWER.
FACESHIELD. DO NOT WEAR CONTACT LENSES!

Work Hygienic Practices:WASH HANDS AFTER HANDLING AND BEFORE EATING,
DRINKING, OR SMOKING. LAUNDRY CONTAMINATED CLOTHES BEFORE REUSE.

Supplemental Safety and Health

MSDS PRESENTED BY CAGE 0A9L8 FOR CONTRACT NUMBER SP0450-96-ML337.

===== Physical/Chemical Properties =====

HCC:F4

Boiling Pt:B.P. Te

xt:263F,128C

Melt/Freeze Pt:M.P/F.P Text:23.0F,-5.0C

Vapor Pres:7.000

Vapor Density:3.0000

Spec Gravity:1.0020

pH:>11.2

Evaporation Rate & Reference: