

HOUGHTON INTERNATIONAL INC -- HOUGHTO-SAFE 273 -- 9150-01-080-5962

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

Product ID:HOUGHTO-SAFE 273

MSDS Date:03/29/2000

FSC:9150

NIIN:01-080-5962

MSDS Number: CKSPX

=== Responsible Party ===

Company Name:HOUGHTON INTERNATIONAL INC

Address:MADISON AND VAN BUREN AVES

Box:930

City:VALLEY FORGE

State:PA

ZIP:19482-0930

Country:US

Info Phone Num:610-666-4105

Emergency Pho

ne Num:800-424-9300

Preparer's Name:GARY CARL

Chemtrec Ind/Phone:(800)424-9300

CAGE:73277

=== Contractor Identification ===

Company Name:HOUGHTON INTERNATIONAL INC

Address:MADISON AND VAN BUREN AVES

Box:930

City:VALLEY FORGE

State:PA

ZIP:19482-0930

Country:US

Phone:610-666-4105

Contract Num:SP0450-00-C-0702

CAGE:73277

Company Name:HOUGHTON INTERNATIONAL INC

Address:MADISON AND VAN BUREN AVES

Box:930

City:VALLEY FORGE

State:PA

ZIP:19482-0930

Country:US

Phone:610-666-4105

Contract Num:SP0450-01-C-

0641
CAGE:73277

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

Ingred Name:ETHYLENE GLYCOL
CAS:107-21-1
RTECS #:KW2975000
Minumum % Wt:30.
Maxumum % Wt:60.
ACGIH STEL:C127 MG/M3;C50 PPM
EPA Rpt Qty:1 LB
DOT Rpt Qty:1 LB

Ingred Name:2-DIETHYLAMINOETHANOL
CAS:100-37-8
RTECS #:KK5075000
< Wt:1.
OSHA PEL:10 PPM (SKIN)
ACGIH TLV:2 PPM (SKIN)

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

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES

Repor
ts of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:INHALATION: AVOID BREATHING PRODUCT
MISTS. BREATHING MISTS IN EXCESS OF THE EXPOSURE LIMITS MAY CAUSE
IRRITATION OF UPPER RESPIRATORY TRACT. SKIN: MILD IRRITANT. EYE:
MODERATE IRRITANT. INGESTION: AVO ID INGESTION. SWALLOWING LARGE
AMOUNTS OF ETHYLENE GLYCOL HAS CAUSED BIRTH DEFECTS IN LABORATORY
ANIMALS.

Effects of Overexposure:INHALATION: AVOID BREATHING PRODUCT MISTS.
BREATHING MISTS IN EX
CESS OF THE EXPOSURE LIMITS MAY CAUSE
IRRITATION OF UPPER RESPIRATORY TRACT. SKIN: MILD IRRITANT. EYE:
MODERATE IRRITANT. INGESTION: AVO ID INGESTION. SWALLOWING LARGE
AMOUNTS OF ETHYLENE GLYCOL HAS CAUSED BIRTH DEFECTS IN LABORATORY
ANIMALS.

Medical Cond Aggravated by Exposure:PERSONS WITH CHRONIC RESPIRATORY
DISEASE MAY SHOW INCREASED SYMPTOMS DUE TO IRRITATION OF MISTS.

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

First Aid:INHALATION: REMOVE TO S

SOURCE OF FRESH AIR. SKIN: WASH WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING AND LAUNDER BEFORE REUSING. CONSULT PHYSICIAN IF IRRITATION PERSISTS. EYE: FLUSH WITH WATER 15 MINUTES. CONSULT PHYSICIAN. INGESTION: INDUCE VOMITING; CONSULT PHYSICIAN.

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

Extinguishing Media:PRODUCT IS A FIRE RESISTANT FLUID; NOT FLAMMABLE AS USED. USE WATER, CARBON DIOXIDE, FOAM OR DRY CHEMICAL.

Fire Fighting Procedures:IF WATER IS REMOVED, PRODUCT WILL BURN. USE WATER, CARBON DIOXIDE, FOAM OR DRY CHEMICAL.

Unusual Fire/Explosion Hazard:NONE.

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

Spill Release Procedures:FLUSH AREA WITH WATER FOR SMALL QUANTITIES; FOR LARGE QUANTITIES, DIKE TO CONTAIN AND EITHER REUSE OR DISPOSE OF DEPENDING ON CONDITION.

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

Handling and Storage Precautions:AVOID CONTACT WITH STRONG OXIDIZERS.

AVOID INGESTION. WASH THOROUGHLY AFTER HANDLING. USE WITH ADEQUATE VENTILATION. KEEP CONTAINERS CLOSED WHEN NOT IN USE.

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

Respiratory Protection:REQUIRED WHEN THE EXPOSURE LIMITS ARE EXCEEDED.

Ventilation:EXHAUST TYPE IF MISTING; OTHERWISE GENERAL TYPE IS SATISFACTORY.

Protective Gloves:RUBBER FOR PROLONGED CONTACT IF SKIN IS SENSITIVE.

Eye Protection:SAFETY GOGGLES OR SAFETY GLASSES WITH SIDE SHIELDS.

Other Protective

Equipment:EYE WASH AND SAFETY SHOWER RECOMMENDED.

Supplemental Safety and Health

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

HCC:N1

Boiling Pt.=101.7C, 215.F

Vapor Pres:AS WATER

Vapor Density:AS WATER

Spec Gravity:1.075

pH:(NEAT) 9.6

Evaporation Rate & Reference:AS WATER

Solubility in Water:COMPLETE

Appearance and Odor:CLEAR RED MOBILE FLUID; SLIGHT AMINE ODOR

Percent Volatiles by Volume:30-60

===== Stability and Reactivity Data =====

==

Stability Indicator/Materials to Avoid: YES

STRONG OXIDIZERS.

Hazardous Decomposition Products: THERMAL; OXIDES OF CARBON AND NITROGEN.

Conditions to Avoid Polymerization: WILL NOT OCCUR.

===== Disposal Considerations =====

Waste Disposal Methods: FOLLOW PERTINENT REGULATIONS FOR DISPOSAL. IT IS THE RESPONSIBILITY OF THE PRODUCT USER TO DETERMINE, AT THE TIME OF DISPOSAL, WHETHER A MATERIAL CONTAINING THE PRODUCT OR DERIVED FROM THE PRODUCT SHOULD

BE CLASSIFIED AS A HAZARDOUS WASTE. (40 CFR 261.20-24).

===== MSDS Transport Information =====

Transport Information: NON-HAZARDOUS (DOT)

===== Regulatory Information =====

SARA Title III Information: SARA TITLE III, SECTION 313: THIS PRODUCT CONTAINS NO TOXIC CHEMICAL SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 AND 40 CFR PART 3

72 OTHER THAN A

MAXIMUM OF: 35% ETHYLENE GLYCOL (CAS 107-21-1).

Federal Regulatory Information: CERCLA REPORTABLE QUANTITY: 35% ETHYLENE GLYCOL - RQ 5000 LBS. RCRA HAZARDOUS WASTE NUMBER: N/A. ALL OF THE COMPONENTS IN THIS PRODUCT ARE ON THE TSCA INVENTORY.

State Regulatory Information: MICHIGAN CRITICALS MATERIALS REGISTER: WE HEREBY STATE THAT HOUGHTON-SAFE 273 DOES NOT CONTAIN ANY OF THE COMPONENTS LISTED IN THE ABOVE.

=====

Disclaimer (provided with this information by the compiling agencies): This information is formulated for use by elements of the Department of Defense. The United States of America in no manner whatsoever, expressly or implied, warrants this information to be accurate and disclaims all liability for its use. Any person utilizing this document should seek competent professional advice to verify and assume responsibility for the suitability of this information to their

particular situation.