

MANILDRA ENERGY CORP -- ETHYL ALCOHOL SPECIALLY DENATURED S.D.A. 3-A-200 --
6810-00-543-7415

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

Product ID:ETHYL ALCOHOL SPECIALLY DENATURED S.D.A. 3-A-200

MSDS Date:05/01/1997

FSC:6810

NIIN:00-543-7415

Status Code:A

MSDS Number: CLSBJ

=== Responsible Party ===

Company Name:MANILDRA ENERGY CORP

Address:100 GEORGE STREET

City:HAMBURG

State:IA

ZIP:51640

Country:US

In

fo Phone Num:712-382-2265

Emergency Phone Num:800-457-4280

Preparer's Name:HAZARDOUS MATERIALS COM

CAGE:UO761

=== Contractor Identification ===

Company Name:CHEMICAL SPECIALISTS AND DEVELOPMENT INC

Address:2210 HACKBERRY LN

Box:687

City:CONROE

State:TX

ZIP:77305

Country:US

Phone:409-756-1065

Contract Num:SP0450-02-M-M120

CAGE:4N760

Company Name:MANILDRA ENERGY CORP

Address:100 GEORGE STREET

Box:City:HAMBURG

State:IA

ZIP:51640

Country:US

Phone:712-382-2265

CAGE:UO761

===== Composition/I

Information on Ingredients =====

Ingred Name:METHANOL

CAS:67-56-1

RTECS #:PC1400000

Minumum % Wt:3.

Maxumum % Wt:6.

OSHA PEL:260 MG/M3;200 PPM

ACGIH TLV:262 MG/M3;200 PPM

ACGIH STEL:328 MG/M3;250 PPM

EPA Rpt Qty:5000 LBS

DOT Rpt Qty:5000 LBS

Ingred Name:ETHYL ALCOHOL

CAS:64-17-5

RTECS #:KQ6300000

Minumum % Wt:94.

Maxumum % Wt:100.

OSHA PEL:1900 MG/M3;1000 PPM

ACGIH TLV:1880 MG/M3;1000 PPM

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

Health Hazards Acute and Ch

ronic:INHALATION: FUMES CAN CAUSE HEADACHE,

NAUSEA, WHEEZING, SHORTNESS OF BREATH, TREMORS, AND FATIGUE. EYES:

IRRITATION. SKIN: CAN CAUSE BURNING SENSATION. INGESTION:MAY BE

HARMFUL OR FATAL IF SWALLOWED.

Effects of Overexposure:INHALATION: HEADACHE, NAUSEA, WHEEZING,

SHORTNESS OF BREATH, TREMORS, AND FATIGUE. EYES: IRRITATION. SKIN:

BURNING SENSATION, IRRITATION. INGESTION:MAY BE HARMFUL.

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

First Aid:INHAL

ATION: MOVE VICTIM TO FRESH AIR. IF NOT BREATHING, GIVE

ARTIFICIAL RESPIRATION. IF DIFFICULTY BREATHING GIVE OXYGEN.

CONSULT A PHYSICIAN. EYES: FLUSH WITH WATER FOR 15-20 MINUTES,

SEPARATING EYELIDS WITH FINGERS. IF IRRITATION PERSISTS, CONSULT A

PHYSICIAN. SKIN: WASH WITH SOAP AND WATER, RINSE WITH WATER. REMOVE

ANY CONTAMINATED CLOTHING AND CLEAN BEFORE REUSE. IF IRRITATION

PERSISTS, CONSULT A PHYSICIAN. INGESTION: INDUCE VOMITING. IF

VICTIM IS CONSCIOUS, RINSE MO

UTH WITH WATER. DO NOT GIVE ANYTHING
BY MOUTH TO AN UNCONSCIOUS PERSON. GET MEDICAL ATTENTION.

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Fire Fighting Measures
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Flash Point Method:TOC

Flash Point:=15.6C, 60.F

Lower Limits:3.3

Upper Limits:20

Extinguishing Media:WATER, ALCOHOL FOAM, CARBON DIOXIDE, OR DRY
CHEMICAL.

Fire Fighting Procedures:REMOVE FLAMMABLE CONTAINERS FROM FIRE AREA;. COOL FIRE EXPOSED CONTAINERS WITH WATER. FOR MASSIVE FIRES IN A STORAGE AREA, EITHER USE UNMA
NNED HOSE HOLDER OR MONITOR NOZZLES,
OR WITHDRAW FROM AREA AND LET FIRE BURN. WITHDRAW IN CASE OF RISING SOUND FROM VENTED SAFETY DEVICE OR DISCOLORATION OF STORAGE TANK DUE TO HEAT.

Unusual Fire/Explosion Hazard:EXTREMELY FLAMMABLE. NEGILIGBLE EXPLOSION. VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL TO A SOURCE OF IGNITION AND FLASHBACK.

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Accidental Release Measures
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Spill Release Procedures:PRODUCT IS AN EXTREMELY FLAMMABLE LIQUID. KEEP

ALL SOURCES OF IGNITION AWAY. VENTILATE AREA; DILUTION WITH WATER WILL DECREASE THE RISK OF A FIRE HAZARD. CONTAIN AND COLLECT FOR CHEMICAL INCINERATION EQUIPPED WITH AFTERBURNER AND SCRUBBER. OBSERVE ALL FEDERAL, STATE AND LOCAL LAWS.

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Handling and Storage
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Handling and Storage Precautions:KEEP CONTAINER(S) TIGHTLY CLOSED WHEN NOT IN USE. GROUND CONTAINERS WHEN EMPTYING. STORE AWAY FROM STRONG OXIDIZING AGENTS IN A COOL DR
Y PLACE AWAY FROM OPEN FLAMES OR
SPARKS IN ADEQUATE EXPLOSION PRO OF VENTILATION. FOLLOW INSTRUCTIONS ON PRODUCT CONTAINERS. RESEAL CONTAINER IMMEDIATELY AFTER USE.

Other Precautions:EMPTY CONTAINERS HAVE THE SAME HAZARDS AS WHEN PREVIOUSLY FULL UNLESS CLEANED AND PURGED OF VAPORS. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE TO SOURCE OF HEAT, FLAME, SPARK S, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

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

Respiratory Protection: AIR PURIFYING RESPIRATOR, NIOSH APPROVED.
Ventilation: SUFFICIENT EXHAUST TO KEEP CONCENTRATION BELOW 1000 PPM.
Protective Gloves: CHEMICAL RESISTANT GLOVES.
Eye Protection: SAFETY EYEWEAR WITH SPLASH GUARD, CHEMICAL GOGGLES.
Work Hygienic Practices: AVOID CONTACT WITH EYES OR SKIN., WASH HANDS
AFTER HANDLING. AVOID BREATHING CONCENTRATED FUMES.
Supplemental Safety and Health

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

HCC: F2
Boiling Pt: =76.7C, 170.F
B.P. Text: APPROX
Melt/Freeze Pt: =-88.3C, -127.F
Vapor Pres: 40 MMHG @ 20C
Vapor Density: 1.5
Spec Gravity: 0.791
Appearance and Odor: CLEAR, COLORLESS LIQUID
Percent Volatiles by Volume: 99.9

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

Stability Indicator/Materials to Avoid: YES
OXIDIZERS SUCH AS ACETYLY CHLORIDE, NITRIC ACID, HYDOGEN PEROXIDE.
Stability Condition to Avoid: EXCESSIVE HEAT, IGNITION SOURCES, FIRE.

Hazardous Decomposition Products: CARBON MONOXIDE, CARBON DIOXIDE

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

Waste Disposal Methods: COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND
LOCAL REGULATIONS.

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

Transport Information: PROPER SHIPPING NAME: ETHYL ALCOHOL. HAZARD
CLASS/DIVISION: 3, IDENTIFICATION NUMBER: UN 1170, PACKING GROUP:
I I, LABEL: FLAMMABLE LIQUID.

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er Information =====

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