

MAGNA INDUSTRIES INC -- DISPOSABLE LPG FUEL CYLINDER -- 3439-00-542-0531

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

Product ID:DISPOSABLE LPG FUEL CYLINDER

MSDS Date:01/01/1987

FSC:3439

NIIN:00-542-0531

Kit Part:Y

MSDS Number: BJRFC

=== Responsible Party ===

Company Name:MAGNA INDUSTRIES INC

Address:2201 WEST 110TH STREET

City:CLEVELAND

State:OH

ZIP:44102

Country:US

Info Phone Num:216-251-3334 FAX: 216-2

51-7778

Emergency Phone Num:216-251-3334 OR 800-969-3334

CAGE:0AJN5

=== Contractor Identification ===

Company Name:BLACK AND CO

Address:5351 W MINNESOTA ST

Box:UNKNOWN

City:INDIANAPOLIS

State:IN

ZIP:46241

Country:US

Phone:317-243-8676

Contract Num:SP0490-99-M-W907

CAGE:00WU8

Company Name:MAGNA INDUSTRIES INC

Address:2201 WEST 110TH STREET

Box:City:CLEVELAND

State:OH

ZIP:44102

Country:US

Phone:216-251-3334 OR 800-969-3334

CAGE:0AJN5

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

=====

Ingred Name:PROPANE
CAS:74-98-6
RTECS #:TX2275000
Fraction by Wt: 95-98%
Other REC Limits:NONE SPECIFIED
OSHA PEL:1000 PPM
ACGIH TLV:ASPHYXIAN; 9192

Ingred Name:ETHANE
CAS:74-84-0
RTECS #:KH3800000
Fraction by Wt: 3-5%
Other REC Limits:NONE SPECIFIED
ACGIH TLV:ASPHYXIAN 9192

Ingred Name:BUTANE
CAS:106-97-8
RTECS #:EJ4200000
Fraction by Wt: 1-3%
Other REC Limits:NONE SPECIFIED
OSHA PEL:800 PPM
ACGIH TLV:800 PPM; 9192

Ingred Name:ISOBUTANE
CAS:75-28-5
RTECS #:TZ4300000
Fraction by Wt: 0
.1-0.3%
Other REC Limits:NONE SPECIFIED
OSHA PEL:1000 PPM
ACGIH TLV:1000 PPM

Ingred Name:METHANE
CAS:74-82-8
RTECS #:PA1490000
Fraction by Wt: 0.1-0.2%
Other REC Limits:NONE SPECIFIED
ACGIH TLV:ASPHYXIAN; 9192

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

Routes of Entry: Inhalation:YES Skin:NO Ingestion:NO
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:LIQUID MAY CAUSE "COLD BURNS" TO EYES
& SKIN SIMILAR TO FROSTBITE. INHAL

ATION OF CONCENTRATIONS BELOW

10,000 PPM HAS LITTLE PHYSIOLOGICAL EFFECT. HIGHER CONCENTRATIONS MAY CAUSE DIZZINESS AND UNCONSCIOUSNESS DUE TO ASPHYXIATION. THERE ARE NO REPORTED EFFECTS FROM LONG-TERM LOW-LEVEL EXPOSURE.

Explanation of Carcinogenicity:THIS COMPOUND CONTAINS NO INGREDIENTS AT CONCENTRATIONS OF 0.1% OR GREATER THAT ARE CARCINOGENS OR SUSPECT CARCINOGENS.

Effects of Overexposure:ABOVE 100,000 PPM; SYMPTOMS OF EXPOSURE MAY INCLUDE DIZZINESS, STUPOR, AND UNCONSCIOUSNESS. ACGIH CLASSIFIES

PROPANE AS AN ASPHYXIAN. THERE IS NO RECOMMENDED TLV.

Medical Cond Aggravated by Exposure:NONE KNOWN

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

First Aid:EYES: FOR LIQUID CONTACT, FLUSH EYES WITH LUKEWARM WATER FOR 15 MINUTES. GET MEDICAL CARE. SKIN: FOR BURNS FROM LIQUID CONTACT, IMMEDIATELY PLACE AFFECTED AREA IN LUKEWARM WATER AND KEEP AT THIS TEMPERATURE UNTIL CIRCULATION RETURNS OR USE BODY HEAT TO WARM FROSTBITE AREAS. GET MEDICAL CARE. INHALATION: REMOVE PERSON TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. GET MEDICAL CARE.

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

Flash Point Method:CC

Flash Point:=-102.8C, -153.F

Autoignition Temp: =432.2C, 810.F

Lower Limits:2.4

Upper Limits:9.5

Extinguishing Media:USE CARBON DIOXIDE OR DRY CHEMICAL. DO NOT EXTINGUISH FIRE UNLESS THE SOURCE OF GAS IS TURNED OFF.

Fire Fighting Procedures:WEAR FIRE FIGHTING PROTECTIVE EQUIPMENT AND A

FULL FACED SELF CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER SPRAY. EVACUATE AREA.

Unusual Fire/Explosion Hazard:METAL CYLINDERS REQUIRE COOLING WITH WATER TO PREVENT FLAME IMPINGEMENT AND THE WEAKENING OF METAL.

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

Spill Release Procedures:STOP LEAK IF POSSIBLE. ELIMINATE ALL SOURCES OF IGNITION. VENTILATE AREA. EVACUATE ALL PERSONNEL. PROPANE IS HEAVIER THAN AIR

R AND CAN SETTLE INTO LOW AREAS. REMAIN UPWIND OF
LEAK. PREVENT VAPOR FROM ENTERING INTO SEWER, BASEMENTS OR
CONFINED AREAS.

Neutralizing Agent:NOT APPLICABLE.

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

Handling and Storage Precautions:CYLINDERS SHOULD NOT BE DROPPED.

Other Precautions:STORAGE TEMPERATURE SHOULD BE KEPT BELOW 125F.
CYLINDERS MUST NOT BE RECHARGED.

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

Respiratory Protection:

SELF-CONTAINED BREATHING APPARATUS WHERE THE
CONCENTRATION OF PROPANE WOULD REDUCE OXYGEN LEVEL BELOW 18% IN
INHALED AIR.

Ventilation:USE EXPLOSION PROOF VENTILATION EQUIPMENT.

Protective Gloves:INSULATED LEATHER GLOVES AS REQUIRED.

Eye Protection:SAFETY GLASSES, GOGGLES OR FACE SHIELD

Other Protective Equipment:NONE NORMALLY REQUIRED.

Work Hygienic Practices:OBSERVE GOOD PERSONAL HYGIENE PRACTICES AND
RECOMMENDED PROCEDURES. USE PROPER CARE WHEN HANDLING AND STORING
CYLINDERS.

S

Supplemental Safety and Health

REFER TO CGA BULLETIN SB-2 "OXYGEN DEFICIENT ATMOSPHERES".

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

HCC:G2

Boiling Pt:=-42.2C, -44.F

Melt/Freeze Pt:=-187.8C, -306.F

Vapor Pres:1013

Vapor Density:1.52

Spec Gravity:0.51

Evaporation Rate & Reference:RAPID/GAS AT NORMAL COND.

Solubility in Water:MODERATE

Appearance and Odor:COLORLESS LIQUID. ODOR IS SIMILAR TO BOILING
CABBAGE (ETHYL MERCAPTAIN ADDED)

Percent Volatiles by Volume:100

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

Stability Indicator/Materials to Avoid: YES

KEEP SEPARATE FROM STRONG OXIDIZING AGENTS. GAS EXPLODES SPONTANEOUSLY WHEN MIXED WITH CHLORINE DIOXIDE.

Stability Condition to Avoid: HIGH HEAT, OPEN FLAMES AND OTHER SOURCES OF IGNITION

Hazardous Decomposition Products: CARBON MONOXIDE

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

Waste Disposal Methods: MOVE LEAKY CYLINDER TO OUTDOORS OR VENTILATED

HOOD. ALLOW GAS TO DISCHARGE AT MODERATE RATE. DISPOSAL SHOULD BE MADE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS.

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.