

MG INDUSTRIES -- LIQUID OXYGEN -- 9135-00-965-2527

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

Product ID:LIQUID OXYGEN

MSDS Date:06/19/1996

FSC:9135

NIIN:00-965-2527

MSDS Number: CHNLB

=== Responsible Party ===

Company Name:MG INDUSTRIES

Address:3 GREAT VALLEY PKY

City:MALVERN

State:PA

ZIP:19355-1424

Country:US

Info Phone Num:610-695-7449

Emergency Phone Num:610-695-7449

CAGE:08772

=== Contractor Identifi  
cation ===

Company Name:MG INDUSTRIES

Address:3 GREAT VALLEY PKY

Box:City:MALVERN

State:PA

ZIP:19355-1424

Country:US

Phone:610-695-7400 / 610-695-7449

CAGE:08772

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

Ingred Name:OXYGEN (GAS)

CAS:7782-44-7

RTECS #:RS2060000

Fraction by Wt: 100%

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

Routes of Entry: Inhalation:YES Skin:NO Ingestion:NO

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Haz

ards Acute and Chronic:INHALATION: MAY CAUSE MUCOUS MEMBRANE IRRITATION & PULMONARY EDEMA AFTER 24 HOURS. RESPIRATORY SYSTEM EFFECTS MAY INCLUDE TRACHEOBRONCHITIS/PNEUMONIA/EDEMA/FIBROBLASTIC/PROLIFERATION & HYPERPLASIA OF ALVEOLAR CELLS. CARDIOVASCULAR SYSTEM EFFECTS MAY INCLUDE BRADYCARDIA/HYPOTHERMIA & PERIPHERAL VASOCONSTRICTION. (SUPP)

Explanation of Carcinogenicity:NONE

Effects of Overexposure:IRRITATION/TIGHTNESS IN THE CHEST/DISCOMFORT/COUGHING/CONGESTION/ASTHMA-LIKE

ATTACKS/APNEA/RAPID PANTING/MOOD CHANGES/NAUSEA/DIZZINESS/SLOW MENTAL PROCESS/TINGLING OF FINGERS/MUSCULAR TWITCHING/VISUAL LOSS OF CONSCIOUSNESS/COLLAPS/REDNESS/PAIN/NUMBNESS/BLISTERS/BLURRED VISION/PHOTOPHOBIA/AMBLYOPIA/MYDRIASIS.

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

First Aid:INHALATION: REMOVE TO FRESH AIR. GIVE CPR IF NECESSARY. KEEP WARM & AT REST. TREAT SYMPTOMATICALLY & SUPPORTIVELY. SKIN: GENTLY WRAPPED AFFECTED PARTS IN BLANKETS. ALLOW CIRCULATION TO RETURN NATURALLY . EYES: WASH W/LARGE AMOUNTS OF WATER. IF FROSTBITE OCCURS, USE WARM WATER. INGESTION: TREAT SYMPTOMATICALLY & SUPPORTIVELY. OBTAIN MEDICAL ATTENTION IN ALL CASES. NO SPECIFIC ANTIDOTE.

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

Extinguishing Media:DRY CHEMICAL/CO2. LARGE: WATER SPRAY, FOG/REGULAR FOAM.

Fire Fighting Procedures:APPLY COOLING WATER TO SIDES OF CONTAINERS UNTIL FIRE IS OUT. USE UNMANNED HOSE HOLDER/MONITOR NOZZLES/W/DRAW FROM AREA & LET FIRE BURN. EVACUATE AREA.

Unusual Fire/Explosion Hazard:CONTAINER MAY EXPLODE IN HEAT/FIRE. CONTACT W/EASILY OXIDIZABLE, ORGANIC/OTHER COMBUSTIBLE MATERIALS MAY RESULT IN IGNITION, VIOLENT COMBUSTION/EXPLOSION.

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

Spill Release Procedures:MOVE CONTAINER FROM FIRE AREA SAFELY W/O RISK. STAY AWAY FROM ENDS OF TANKS. DON'T USE WATER ON MATERIAL ITSELF. EVAC

UATE TO A RADIUS OF 1500 FEET IF FIRE BECOMES UNCONTROLLABLE/IF CONTAINER IS EXPOSE D TO DIRECT FLAME.

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

Handling and Storage Precautions:PROTECT AGAINST PHYSICAL DAMAGE.  
PROTECT AGAINST OVERHEATING. OUTSIDE STORAGE OF LIQUID OXYGEN TANKS IS RECOMMENDED.

Other Precautions:ISOLATE FROM COMBUSTIBLE GAS INSTALLATIONS & COMBUSTIBLE MATERIALS BY ADEQUATE DISTANCE/BY GAS TIGHT FIRE RESISTIVE BARRIERS. AVOID CONTACT W/COMBUSTIBLE MATERIALS. IGNITION MAY OCCUR W/COMBUSTIBLES. CONTENTS ARE UNDER PRESSURE.

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

Respiratory Protection:ANY SUPPLIED AIR RESPIRATOR/SCBA W/A FULL FACEPIECE/ANY SUPPLIED AIR RESPIRATOR W/A FULL FACEPIECE IN A PRESSURE DEMAND MODE IN COMBINATION W/AN AUXILIARY SCBA; WHICH MUST NOT EXCEED THE LIMITS & MUST BE APPROVED BY NIOSH/MSHA.

Ventilation:GENERAL DILUTION

Protective Gloves:FULL PROTECTIVE/COLD INSULATING

Eye Protection:SPLASH PROOF SAFETY GOGGLES/FACESHIELD

Other Protective Equipment:PROTECTIVE CLOTHING & EQUIPMENT, EYE WASH FOUNTAIN & QUICK DRENCH SHOWER.

Supplemental Safety and Health

SKIN: LIQUID MAY CAUSE FROSTBITE. EYES: MAY CAUSE IRRITATION & CAUSE FROSTBITE. INGESTION: FROSTBITE DAMAGE OF THE LIPS, MOUTH & MUCOUS MEMBRANES MAY OCCUR.

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

Boiling Pt:B.P. Text:-297F

Melt/Freeze Pt:M.P/F.P Text:-361F

Vapor

Pres:760

Vapor Density:1.1

Spec Gravity:1.1407

Solubility in Water:3.2%

Appearance and Odor:ODORLESS LIGHT BLUE LIQUID

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

Stability Indicator/Materials to Avoid:YES

WOOD, PAPER, OIL.

Stability Condition to Avoid:HEAT/FLAME.

Hazardous Decomposition Products:NON-HAZARDOUS

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

Waste Disposal Methods:DISPOSE OF IAW/FEDERAL, STATE & LOCAL REGULATIONS. EPA HAZARDOUS

WASTE D001, UN1073.

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 the  
ir  
particular situation.