

MG INDUSTRIES -- LIQUID NITROGEN -- 9135-00-559-5287

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

Product ID:LIQUID NITROGEN  
MSDS Date:09/10/1998  
FSC:9135  
NIIN:00-559-5287  
Status Code:A  
MSDS Number: CJGXH  
=== Responsible Party ===  
Company Name:MG INDUSTRIES  
Address:3 GREAT VALLEY PARKWAY  
City:MALVERN  
State:PA  
ZIP:19355-1424  
Country:US  
Info Phone Num:215-630-5422  
Emergency Phone Num:800-424-9300(CHEMTREC) 21  
5-630-5422  
Preparer's Name:OCCUPATIONAL HEALTH SRVCS  
Chemtrec Ind/Phone:(800)424-9300  
CAGE:08772  
=== Contractor Identification ===  
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  
CAS:7782-44-7  
RTECS #:RS2060000  
= Wt:100.  
Other REC Limits:NONE SPECIFIED

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

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Routes of Entry: Inhalation:YES Skin:NO Ingestion:NO  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:INHALATION: MAY CAUSE IRRITATION, LUNG  
CONGESTION & BLOOD DISORDERS. LONG TERM EXPOSURE MAY CAUSE LUNG  
DAMAGE. SKIN: FROSTBITE. EYES: IRRITATION, BLURRED VISION,  
BLINDNESS. INGESTION: FROSTBITE.  
Effects of Overexposure:IRRITATION, NAUSEA, ASTHMA, IRREGULAR  
HEARTBEAT, DIZZINESS, TINGLING SENSATION, DILATED PUPILS,  
CONGEST  
ION, CONVULSIONS, CHEST PAIN, BLISTERS, FROSTBITE, BLURRED  
VISION

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

First Aid:INHALE:REMOVE FROM EXPOSURE IMMEDIATELY. USE A BAG VALVE  
MASK/SIMILAR DEVICE TO PERFORM CPR IF NEEDED. SKIN: WASH IF NEEDED.  
IF FROSTBITE, FREEZING/CRYOGENIC BURNS OCCUR, WARM AREA IN WARM  
WATER/GENTL Y WRAP AFFECTED PARTS IN BLANKETS. ALLOW CIRCULATION TO  
RETURN NATURALLY. EYES: WASH IMMEDIATELY W/LARGE AMOUNTS OF WATER.  
OBTAI  
N MEDICAL ATTENTION IN ALL CASES.

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

Extinguishing Media:CARBON DIOXIDE, REGULAR/DRY CHEMICAL.  
Fire Fighting Procedures:USE FOAM/FLOOD W/FINE WATER SPRAY. MOVE  
CONTAINER FROM FIRE W/O RISK. COOL CONTAINERS W/WATER SPRAY/W/WATER  
FROM UNMANNED HOSE HOLDER/MONITOR NOZZLES UNTIL FIRE IS OUT. KEEP  
PEOPLE AWAY, ISOLATE AREA & DENY ENTRY.STAY AWAY FROM THE ENDS OF  
TANKS. EVACUATE RADIUS: 800 METERS/1 HALF MILE.  
Unusual  
Fire/Explosion Hazard:MAY IGNITE/EXPLODE ON CONTACT  
W/COMBUSTIBLE MATERIALS. CONTAINERS MAY RUPTURE/EXPLODE IF EXPOSED  
TO HEAT.

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

Spill Release Procedures:AVOID CONTACT W/COMBUSTIBLE MATERIALS. DON'T  
TOUCH SPILLED MATERIAL. STOP LEAK IF POSSIBLE W/O RISK. KEEP  
UNNECESSARY PEOPLE AWAY, ISOLATE AREA & DENY ENTRY.

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

Handling and Storage Precautions

:STORE & HANDLE IN ACCORDANCE W/OSHA  
29CFR1910.104. PROTECT FROM PHYSICAL DAMAGE. KEEP SEPARATED FROM  
INCOMPATIBLE SUBSTANCES. STORE IN A COOL, DRY PLACE. STORE  
OUTSIDE/IN A DETACHED BUILDING.

Other Precautions:AVOID CONTACT WITH COMBUSTIBLE MATERIALS.

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

Respiratory Protection:FOR FREQUENT USE/HEAVY EXPOSURE, USE ANY  
SUPPLIED-AIR RESPIRATOR W/FULL FACEPIECE & OPERATED IN A PRESSURE  
DEMAND /OTHER POSITIVE PRES  
SURE MODE IN COMBINATION W/A SEPARATE  
ESCAPE SUPPLY/ANY SELF CONTAINED BREATHING APPARATUS W/A FULL  
FACEPIECE.

Ventilation:ENSURE COMPLIANCE W/APPLICABLE EXPOSURE LIMITS.

Protective Gloves:INSULATED

Eye Protection:SPLASH-RESISTANT SAFETY GOGGLES

Other Protective Equipment:EMERGENCY EYE WASH FOUNTAIN, QUICK DRENCH  
SHOWER IN THE IMMEDIATE WORK AREA, PROTECTIVE COLD INSULATING  
CLOTHING.

Supplemental Safety and Health  
CONTACT LENSES SHOULD NOT BE WORN.

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

HCC:G7  
Boiling Pt:=-183.C, -297.4F  
Melt/Freeze Pt:=-218.C, -360.4F  
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  
COMBUSTIBLE MATERIALS; HALO CARBONS, METALS, BASES, REDUCING AGENTS,  
AMINES, METAL SALTS, OXIDIZING MATERIALS.

Stability Condition to Avoid:HEAT  
Haza

rdous Decomposition Products:FORMS EXPLOSIVE MIXTURES, PEROXIDES,  
COMPOUNDS

===== Toxicological Information =====

Toxicological Information:LIQUID MAY CAUSE FROSTBITE TO EYES & SKIN.  
MAY CAUSE REDNESS, TINGLING, PAIN & NUMBNESS. IN SEVERE CASES, THE  
SKIN MAY BECOME HARD & WHITE, DEVELOPING BLISTERS. EYES: MAY CAUSE  
BLURRED VISION. IF LIQ UID IS SWALLOWED, FROSTBITE DAMGE OF THE  
LIPS, MOUTH & MUCOUS MEMBRANES MAY OCCUR.

===== Di  
sposal Considerations =====

Waste Disposal Methods:DISPOSE OF IN ACCORDANCE W/LOCAL, STATE &  
FEDERAL REGULATIONS.

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

Transport Information:U.S. EPA 40 CFR 262. HAZARDOUS WASTE NUMBER D001.  
U.S. DOT 49 CFR 172.101 OXYGEN REFRIGERATED LIQUID UN1073.

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

SARA Title III Information:SARA HAZARD CATEGORIES, SARA SECTIONS  
311/312 40CFR370.21  
: FIRE, SUDDEN RELEASE  
State Regulatory Information:EUROPEAN REGULATIONS: EC RISK & SAFETY  
PHRASES; CONTACT W/COMBUSTIBLE MATERIAL MAY CAUSE FIRE. R8.

===== Other Information =====

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