

NITROGEN, OR LIN (IN CRYOGENIC LIQ STATE)

MSDS Number

BHDWD

National Stock Number

6830-00-782-2643

Product Name

NITROGEN, OR LIN (IN CRYOGENIC LIQ STATE)

Manufacturer

AIR PRODUCTS AND CHEMICALS INC

Product Identification

Product ID:NITROGEN, OR LIN (IN CRYOGENIC LIQ STATE)

MSDS Date:08/27/1987

FSC:6830

NIIN:00-782-2643

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Responsible Party

AIR PRODUCTS AND CHEMICALS, INC.

2043 S 35TH ST

TACOMA , WA 98411-0393

US

Emergency Phone: NONE

Cage: 00742

Contractor

AIR PRODUCTS AND CHEMICALS INC

ALLENTOWN, PA 18195-1501

US

800-345-3148/ 800-752-1597

Cage: 00742

Ingredients

NITROGEN

CAS: 7727-37-9

RTECS: QW9700000

Hazards

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

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

Health Hazards Acute and Chronic:NITROGEN IS ODORLESS AND NONTXIC, BUT MAY PRODUCE SUFFOCATION BY DILUTING THE CONCENTRATION OF OXYGEN IN AIR BELOW LEVELS NECESSARY TO SUPPORT LIFE. PERSONS,INCLUDING RESCUE WORKERS, SHOULD NOT ENT ER AREAS WHERE THE OXYGEN CONCENTRATIONIS BELOW 19%, UNLESS PROVIDED WITH A SELF-CONTAINED BREATHING APPARATUS.

Explanation of Carcinogenicity:NITROGEN IS A SIMPLE ASPHYXIANT AND HAS NO THRESHOLD LIMIT VALUE (TLV).

Effects of Overexposure:EXPOSURE TO OXYGEN-DEFICIENT ATMOSPHERE MAY PRODUCE DIZZINESS, NAUSEA, VOMITING,LOSS OF CONSCIOUSNESS, & DEATH. EXTENSIVE TISSUE DAMAGE OR BURNS CAN RESULT FROEXPOSURE TO LIQUID NITROGEN OR COLD NITR OGEN VAPORS.NITROGEN UNDER HIGH PRESSURECAN PRODUCE NARCOSIS EVEN THOUGH OXYGEN SUFFICIENT FOR LIFE IS PRESENT.

Medical Cond Aggravated by Exposure:NITROGEN UNDER HIGH PRESSURE CAN

PRODUCE NARCOSIS EVEN THOUGH OXYGEN SUFFICIENT FOR LIFE IS PRESENT. RESPIRATORS WON'T FUNCTION IN OXY-DEFICIENT ATMOS. & USE MAY RESULT IN ASPHYXIATION. USE S.C.B.A.

First Aid

First Aid: MOVE PERSON SUFFERING FROM LACK OF OXY TO NORMAL ATMOS. IF PERSON IS NOT BREATHING, PERFORM CPR AND PROVIDE SUPPLEMENTAL OXY. IF CRYOGENIC LIQ OR COLD BOIL-OFF GAS CONTACTS A WORKER'S SKIN OR EYES, FROZEN TISSUES SHOULD BE FLOODED OR SOAKED WITH TEPID WATER. DO NOT USE HOT WATER. CRYOGENIC BURNS WHICH RESULT IN BLISTERING OR DEEPER TISSUE FREEZING SHOULD BE SEEN PROMPTLY BY A PHYSICIAN.

Accidental Release

Spill Release Procedures: AVOID CONTACT OF SKIN WITH LIQUID NITROGEN OR ITS BOIL-OFF GAS. FLUSH LIQ NITROGEN SPILL WITH WATER TO DISPERSE. VENT ENCLOSED AREAS TO PREVENT FORMATION OF OXY-DEFICIENT ATMOS. CAUSED BY THE EVAP OF LIQUID NITROGEN OR THE RELEASE OF GASEOUS NITROGEN

Handling

Handling and Storage Precautions: PREVENT ENTRAPMENT OF LIQ IN CLOSED SYS. SEGREGATE FULL & EMPTY CYLINDERS. PREVENT CONTACT OF LIQ NIT OR COLD BOIL-OFF GAS WITH SKIN. SEE CGA PAMP P-1.
Other Precautions: LIQUID NITROGEN IS A CRYOGENIC LIQ. MATERIALS OF CONSTRUCTION MUST BE SELECTED FOR COMPATIBILITY WITH EXTREMELY LOW TEMPS. AVOID USE OF CARBON STEEL & OTHER MATERIALS WHICH BECOME BRITTLE AT LOW TEMPERATURES.

Exposure Controls

Respiratory Protection: USE SELF-CONTAINED BREATHING APPARATUS IN OXYGEN-DEFICIENT ATMOSPHERES. CAUTION! RESPIRATORS WILL NOT FUNCTION. USE MAY RESULT IN ASPHYXIATION.
Ventilation: NATURAL OR MECHANICAL WHERE GAS IS PRESENT.
Protective Gloves: LEATHER WORK GLOVES
Eye Protection: CHEMICAL GOGGLES OR SAFETY GLASSES
Other Protective Equipment: NONE
Supplemental Safety and Health
VENTS SHOULD BE SITUATED TO AVOID HIGHER THAN NORMAL CONCENTRATION OF NITROGEN IN WORK AREAS.

Chemical Properties

HCC: G3
Boiling Pt: -195.4C, -320.F
Vapor Density: *SEE BELOW
Spec Gravity: 68F20C1ATM 0.967
Solubility in Water: 68F20C1ATM 1.52% BY VOL
Appearance and Odor: BOTH LIQUID AND GASEOUS NITROGEN ARE COLORLESS AND ODORLESS.

Stability

Stability Indicator/Materials to Avoid: YES
NONE
Stability Condition to Avoid: NONE
Hazardous Decomposition Products: NONE

Disposal

Waste Disposal Methods: ALLOW LIQ NITROGEN TO EVAP IN WELL VENTILATED OUT-DOOR LOCATION REMOTE FROM WORK AREAS. VENT NIT-GAS IN SAME WAY. DO NOT DISPOSE OF RESIDUAL NITROGEN IN COMPRESSED GAS CYLINDERS.

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