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MSDS: Nitrogen Compressed Gas

PRODUCT INFORMATION

PRODUCT: Nitrogen
TRADE NAME: Nitrogen
CHEMICAL NAME: Nitrogen

SYNONYMS: Nitrogen Compressed

FORMULA: N₂

CHEMICAL FAMILY: Nitrogen (only gas in family)

SUPPLIER'S NAME: MEGS Inc.
SUPPLIER'S ADDRESS: 2675 De Miniac

Ville St-Laurent, Qc, H4S 1E5

EMERGENCY PHONE NUMBER: (613) 996-6666

MOLECULAR WEIGHT: 28.01
PRODUCT USE: Various
PRODUCT IDENTIFICATION UN 1066

NUMBER:

HAZARDOUS INGREDIENTS

CHEMICAL ID CONCENTRATION CAS # LD(50) LC(50)

> 99.5 %

Nitrogen 7727-37-9 None None

PHYSICAL DATA

PHYSICAL STATE: Gas under pressure

APPEARANCE: Colorless gas

ODOR: Odorless

ODOR THRESHOLD: Not applicable

SPECIFIC GRAVITY (H₂O = 1): See Vapor Density (air = 1)

VAPOR PRESSURE: Not applicable (gas)

VAPOR DENSITY (air = 1): 0.967

EVAPORATION RATE: Not applicable (gas)

BOILING POINT: -195.8°C **FREEZING POINT:** -210.0°C

pH: Not applicable (gas)

GAS DENSITY: 1.185 kg/m³ @ 15°C, 101.3 kPa COEFFICIENT OF WATER/OIL @ 15°C, Bunsen Coefficient =

DISTRIBUTION: 0.0170

FIRE OR EXPLOSION HAZARD

CONDITIONS OF FLAMMABILITY: Nonflammable gas

MEANS OF EXTINCTION:

FLASHPOINT AND METHOD OF

Nonflammable gas

DETERMINATION:

UPPER EXPLOSION LIMIT (% BY VOL): Nonflammable gas LOWER EXPLOSION LIMIT (% BY VOL): Nonflammable gas AUTO-IGNITION TEMPERATURE: Nonflammable gas FLAMMABILITY CLASSIFICATION: Nonflammable gas Nonflammable gas

PRODUCTS:

EXPLOSION DATA: Nonflammable gas

SENSITIVITY TO STATIC DISCHARGE: None

REACTIVITY DATA

CHEMICAL STABILITY: Stable INCOMPATIBLE MATERIALS: None

CONDITIONS OF REACTIVITY: Chemically inactive at low and

ambient temperatures

HAZARDOUS DECOMPOSITION None PRODUCTS:

TOXICOLOGICAL PROPERTIES

ROUTES OF ENTRY:

SKIN CONTACT: None

SKIN ABSORPTION: None

EYE: None

<u>INHALATION:</u> Effects of exposure to concentrations sufficient to displace the oxygen in the air necessary for life are: dizziness, labored breathing and eventual unconsciousness, and death.

INGESTION: None

ACUTE OVER EXPOSURE EFFECTS: Nitrogen is nontoxic but the liberation of a large amount in a confined area could displace the amount of oxygen in air necessary to support life.

CHRONIC OVER EXPOSURE EFFECTS: None

EXPOSURE LIMITS: Nitrogen should be considered a simple asphyxiant. Oxygen levels should be maintained at greater than 18 molar percent at normal atmospheric pressure which is equivalent to a partial pressure of 135 mm Hg. (ACGIH 1995-1996).

IRRITANCY OF PRODUCT: None

SENSITIZATION TO MATERIAL: None

CARCINOGENICITY, REPRODUCTIVE EFFECTS: None

TERATOGENICITY, MUTAGENICITY: None

TOXICOLOGICALLY SYNERGISTIC PRODUCTS: None

PREVENTIVE MEASURES

<u>PERSONAL PROTECTIVE EQUIPMENT:</u> Safety goggles or glasses. Safety shoes. Gloves, any material.

SPECIFIC ENGINEERING CONTROLS: Nitrogen is noncorrosive and may be used with common structural materials.

LEAK AND SPILL PROCEDURES: EVACUATE ALL PERSONNEL FROM AFFECTED AREA.

Use appropriate protective equipment. If leak is on container or container valve, contact the closest MEGS location.

<u>WASTE DISPOSAL:</u> Do not attempt to dispose of waste or unused quantities. Return in the shipping container properly labeled, with any valve outlet plugs or caps secured and valve protection cap in place to MEGS for proper disposal. For emergency disposal, contact the closest MEGS location.

<u>HANDLING PROCEDURES AND EQUIPMENT:</u> USE ONLY IN WELL-VENTILATED AREAS.

Valve protection caps must remain in place unless container is secured with

valve outlet piped to the point of use. Do not drag, slide or roll cylinders. Use a suitable hand truck for cylinder movement. Use a pressure reducing regulator when connecting cylinder to lower pressure piping or systems. Do not heat cylinder by any means to increase the discharge rate of product from the cylinder. Use a check valve or trap in the discharge line to prevent hazardous back flow into cylinder. Do not tamper with (valve) safety device. Close valve after each use and when empty. Do not use adaptors. Adaptors may be used in exceptional circumstances at filling plants under supervisor's strict direction only.

STORAGE REQUIREMENTS: Protect cylinders from physical damage. Store in cool, dry, well-ventilated area of non combustible construction away from heavily trafficked areas and emergency exits. Do not allow the temperature where cylinders are stored to exceed 52°C. Cylinders must be stored upright and firmly secured to prevent falling or being knocked over. Full and empty cylinders should be segregated. Use a "first in - first out" inventory system to prevent full cylinders being stored for excessive periods of time.

TDG CLASSIFICATION: 2.2

WHMIS CLASSIFICATION: A

<u>SPECIAL SHIPPING INFORMATION:</u> Always secure cylinders in an upright position before transporting them. NEVER transport cylinders in trunks of vehicles, enclosed vans, truck cabs or in passenger compartments. Transport cylinders secured in open flatbed or in open pick-up type vehicles.

FIRST AID MEASURES

<u>SPECIFIC FIRST AID PROCEDURES:</u> PROMPT MEDICAL ATTENTION IS MANDATORY IN ALL CASES OF OVEREXPOSURE TO NITROGEN. RESCUE PERSONNEL SHOULD BE EQUIPPED WITH SELF-CONTAINED BREATHING APPARATUS.

<u>INHALATION:</u> Conscious persons should be assisted to an uncontaminated area and inhale fresh air. Quick removal from the contaminated area is most important. Unconscious persons should be moved to an uncontaminated area, given assisted resuscitation and supplemental oxygen. Further treatment should be symptomatic and supportive.

EYE CONTACT: Not applicable

SKIN CONTACT: Not applicable

PREPARATION INFORMATION

PREPARED BY: Safety Department

DATE PREPARED: 09/01/1999

LAST REVISION DATE: 04/01/2008

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