

AIRCO INDUSTRIAL GASES -- NITROUS OXIDE -- 6505-00-130-1940

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Product Identification
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Product ID:NITROUS OXIDE

MSDS Date:09/01/1992

FSC:6505

NIIN:00-130-1940

MSDS Number: BKBJN

=== Responsible Party ===

Company Name:AIRCO INDUSTRIAL GASES

Address:575 MOUNTAIN AVE

City:MURRAY HILL

State:NJ

ZIP:07974-2006

Country:US

Info Phone Num:800-424-9300 (CHEMTREC)

Emergency Phone Num:201-464-8100

CA

GE:6J576

=== Contractor Identification ===

Company Name:BOC GROUP INC THE, BOC GASES DIV

Address:575 MOUNTAIN AVE

Box:City:NEW PROVIDENCE

State:NJ

ZIP:07974-1209

Country:US

Phone:908-464-8100

CAGE:6J576

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Composition/Information on Ingredients
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Ingred Name:NITROUS OXIDE

CAS:10024-97-2

RTECS #:QX1350000

Fraction by Wt: >98%

Other REC Limits:NONE SPECIFIED

ACGIH TLV:50 PPM; 9192

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Hazards Identification
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LD50 LC50 Mixture:L

C50 (ORAL RAT) IS 1068 MG/M3

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

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

Health Hazards Acute and Chronic:HIGH CONCENTRATIONS MAY CAUSE DEEP BREATHING, DIZZINESS, NAUSEA AND EVENTUAL UNCONSCIOUSNESS DUE TO INADEQUATE OXYGEN. CAUSES ANESTHETIC EFFECTS; ACTS AS A SLIGHT NARCOTIC. DIRECT PHYSICAL CONTACT WITH LIQUID NITROUS OXIDE WILL CAUSE FROSTBITE AND COLD BURN DAMAGE.

Explanation of Carcinogenicity:NITROUS OXIDE IS NOT LISTED BY IARC, NTP OR OSHA AS A CARCINOGEN.

Effects of Overexposure:DEEP BREATHING, DIZZINESS, NAUSEA. ACTS AS AN ANESTHETIC WITH MILD NARCOTIC EFFECTS. LAUGHTER EFFECTS SEEM TO OCCUR AFTER INCIPENT ASPHYXIA ACCOMPANIED BY THE SUDDEN RETURN OF OXGEN AS IN AIR. CONTACT WITH SKIN/EYES WILL CAUSE FROSTBITE.

Medical Cond Aggravated by Exposure:PERSONS WITH A HISTORY OF RESPIRATORY DISORDERS MAY BE AT INCREASED RISK FROM EXPOSURE.

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First Aid Measures

First Aid:EYES: REMOVE VICTIM FROM EXPOSURE AND ALLOW LIQUID TO EVAPORATE. CONSULT AN OPHTHALMOLOGIST. SKIN:FLUSH AFFECTED AREAS WITH LUKEWARM WATER. INHALATION:REMOVE VICTIM TO FRESH AIR AND GIVE ARTIFICIAL RE SUSCITATION AND SUPPLEMENTAL OXYGEN AS NEEDED. CONSULT A PHYSICIAN IN ALL CASES OF EXPOSURE.

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Fire Fighting Measures

Flash Point:NONFLAMMABLE

Lower Limits:NOT GIVEN

Upper Limits:NOT GIVEN

Extingu

ishing Media:USE COPIOUS QUANTITIES OF WATER FOR FIRES WITH NITROUS OXIDE AS THE OXIDIZER. USE EXTINGUISHER BASED ON MATERIALS BURNED

Fire Fighting Procedures:WEAR FIRE FIGHTING PROTECTIVE EQUIPMENT AND A FULL FACED SELF CONTAINED BREATHING APPARATUS. EVACUATE AREA. COOL FIRE EXPOSED CONTAINERS WITH WATER SPRAY.

Unusual Fire/Explosion Hazard:COMBUSTION OR HEAT OF FIRE MAY PRODUCE HAZARDOUS DECOMPOSITION PRODUCTS AND VAPORS. NITROUS OXIDE MAY OXIDIZE SOME METALS AT ELEVATE

D TEMPERATURES.

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

Spill Release Procedures:WEAR PROTECTIVE EQUIPMENT, ELIMINATE SOURCES OF IGNITION, AND VENTILATE AREA AS REQUIRED. PIPING AND OTHER EQUIPMENT MAY NEED TO BE PURGED.

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:STORE IN A COOL, DRY, WELL VENTILATED AREA AWAY FROM SOURCES OF IGNITION. KEEP CONTAINER CLOSED WHEN NOT IN USE. PROTECT FROM PHYSICAL DAMAGE.

Other Precautions:VALVE PROTECTION CAPS SHOULD BE USED UNLESS CONTAINER IS SECURED. DO NOT DRAG, SLIDE, OR ROLL CYLINDERS. USE A PRESSURE REDUCING REGULATION. DO NOT HEAT CYLINDER TO INCREASE PRODUCT FLOW. DO NOT STORE ABOVE 125F.

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

Respiratory Protection:IF VENTILATION DOES NOT MAINTAIN INHALATION EXPOSURES BELOW PEL (TLV), USE POSITIVE PRESSURE AIR LINE WITH MASK OR SCBA FOR EMERGENCY USE.

Ventilation:LOCAL VENTILATION MAY BE NEEDED.

Protective Gloves:GLOVES TO PROTECT AGAINST FROSTBITE.

Eye Protection:SAFETY GLASSES/CHEMICAL SPLASH GOGGLES

Other Protective Equipment:SAFETY SHOWER AND EYE BATH. INDUSTRIAL TYPE WORK CLOTHING AND APRON AS REQUIRED INCLUDING SAFETY SHOES.

Work Hygienic Practices:WASH HANDS THOROUGHLY WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES.

Supplemental Safety and Health

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KEEP CYLINDERS SECURED. AVOID USE IN CONFINED SPACES. AVOID BREATHING VAPORS.

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

HCC:G4

Boiling Pt:B.P. Text:-127F,-88C

Melt/Freeze Pt:M.P/F.P Text:-132F,-91C

Vapor Pres:736 PSIG

Vapor Density:1.529

Spec Gravity:1.227@-127F

Evaporation Rate & Reference:GAS

Solubility in Water:SLIGHTLY SOLUBLE

Appearance and Odor:COLORLESS GAS; REFRIGERATED LIQUID IS WATER WHITE; SLIGHTLY SWEET ODOR

Percent Volatiles by Volume:100

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

Stability Indicator/Materials to Avoid: YES

ALL FLAMMABLE MATERIALS, GREASE, OIL, HYDROCARBONS, ALKALI METALS AND REDUCING AGENTS.

Stability Condition to Avoid: HIGH HEAT AND OPEN FLAMES; ALL FLAMMABLE MATERIALS.

Hazardous Decomposition Products: AT ELEVATED TEMPERATURES, NITROUS OXIDE DECOMPOSES INTO NITROGEN AND OXYGEN. N₂O MAY EXPLODE IN SOME FIRE CASES.

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

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Waste Disposal Methods: DISPOSE OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.

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