

ATEI IAL SAFETY DATA SHEET

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SECTION 1. - - - - - CHEMICAL IDENTIFICATION- - - - -

CATALOG #: 295574
NAME: NITROGEN, 99.998+%

SECTION 2. - - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - -

CAS #: 7727-37-9
MF: N2
EC NO: 231-783-9

SYNONYMS

NITROGEN (ACGIH:OSHA) * NITROGEN, COMPRESSED (UN1066) (DOT) *
NITROGEN, REFRIGERATED LIQUID (CRYOGENIC LIQUID) (UN1977) (DOT) *
NITROGEN GAS * UN1066 (DOT) * UN1977 (DOT) *

SECTION 3. - - - - - HAZARDS IDENTIFICATION - - - - -

CAUTION: NONFLAMMABLE HIGH-PRESSURE GAS.

LABEL PRECAUTIONARY STATEMENTS

IN CASE OF INSUFFICIENT VENTILATION, WEAR SUITABLE
RESPIRATORY EQUIPMENT.
CYLINDER TEMPERATURE SHOULD NOT EXCEED 125 F(52 C).
DO NOT PUNCTURE OR INCINERATE THIS CYLINDER.

SECTION 4. - - - - - FIRST-AID MEASURES- - - - -

IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL
RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS.
CALL A PHYSICIAN.

SECTION 5. - - - - - FIRE FIGHTING MEASURES - - - - -

EXTINGUISHING MEDIA

USE WATER SPRAY OR FOG NOZZLE TO KEEP CYLINDER COOL. MOVE CYLINDER
AWAY FROM FIRE IF THERE IS NO RISK.

SPECIAL FIREFIGHTING PROCEDURES

WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO
PREVENT CONTACT WITH SKIN AND EYES.
CAUTION: NONFLAMMABLE HIGH-PRESSURE GAS.

UNUSUAL FIRE AND EXPLOSIONS HAZARDS

CONTAINER EXPLOSION MAY OCCUR UNDER FIRE CONDITIONS.

SECTION 6. - - - - - ACCIDENTAL RELEASE MEASURES- - - - -

EVACUATE AREA AND KEEP PERSONNEL UPWIND.
WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY
RUBBER GLOVES.
SHUT OFF LEAK IF THERE IS NO RISK.
VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

SECTION 7. - - - - - HANDLING AND STORAGE- - - - -

REFER TO SECTION 8.

ADDITIONAL INFORMATION

TITANIUM IS THE ONLY ELEMENT THAT WILL BURN IN NITROGEN. LITHIUM
REACTS SLOWLY WITH NITROGEN AT AMBIENT TEMPERATURES TO FORM THE
NITRIDE, WHICH AUTOCATALYZES THE REACTION WHICH PROGRESSIVELY
ACCELERATES AND BECOMES EXOTHERMIC. NITROGEN FORMS EXPLOSIVE MIXTURES
WITH OZONE.

SECTION 8. - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - - -

CHEMICAL SAFETY GOGGLES.
COMPATIBLE CHEMICAL-RESISTANT GLOVES.
MECHANICAL EXHAUST REQUIRED.
NIOSH/MSHA-APPROVED RESPIRATOR IN NONVENTILATED AREAS AND/OR FOR

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EXPOSURE ABOVE THE ACGIH TLV.

SAFETY SHOWER AND EYE BATH.

DO NOT BREATHE GAS.

DO NOT GET IN EYES, ON SKIN, ON CLOTHING.

AVOID PROLONGED OR REPEATED EXPOSURE.

WASH THOROUGHLY AFTER HANDLING.

KEEP TIGHTLY CLOSED.

CYLINDER TEMPERATURE SHOULD NOT EXCEED 125 F(52 C).

STORE AND USE WITH ADEQUATE VENTILATION.

CONTENTS UNDER PRESSURE.

WARNING: SUCK-BACK INTO CYLINDER MAY CAUSE RUPTURE.

USE BACK-FLOW-PREVENTIVE DEVICE IN PIPING.

USE WITH EQUIPMENT RATED FOR CYLINDER PRESSURE, AND OF COMPATIBLE MATERIALS OF CONSTRUCTION. CLOSE VALVE WHEN NOT IN USE AND WHEN EMPTY.

MAKE SURE CYLINDER IS PROPERLY SECURED WHEN IN USE OR STORED.

SECTION 9. - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - -

APPEARANCE AND ODOR

COLORLESS GAS

PHYSICAL PROPERTIES

BOILING POINT: -195.8 C

MELTING POINT: -210 C

VAPOR DENSITY: .97

SECTION 10. - - - - - STABILITY AND REACTIVITY - - - - -

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS

NATURE OF DECOMPOSITION PRODUCTS NOT KNOWN.

SECTION 11. - - - - - TOXICOLOGICAL INFORMATION - - - - -

ACUTE EFFECTS

MAY BE HARMFUL.

CAN CAUSE RAPID SUFFOCATION.

EXPOSURE CAN CAUSE:

NAUSEA, HEADACHE AND VOMITING

ADDITIONAL INFORMATION

AT HIGH CONCENTRATIONS NITROGEN FUNCTIONS AS A SIMPLE ASPHYXIAN BY DISPLACING AIR.

RTECS #: QW9700000

NITROGEN

ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES (RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR COMPLETE INFORMATION.

SECTION 12. - - - - - ECOLOGICAL INFORMATION - - - - -

DATA NOT YET AVAILABLE.

SECTION 13. - - - - - DISPOSAL CONSIDERATIONS - - - - -

CAUTION: NO-RETURN CYLINDER. DO NOT REUSE. EMPTY CYLINDER WILL CONTAIN HAZARDOUS RESIDUE. FOLLOW PROPER DISPOSAL TECHNIQUES.

OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

SECTION 14. - - - - - TRANSPORT INFORMATION - - - - -

CONTACT ALDRICH CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.

SECTION 15. - - - - - REGULATORY INFORMATION - - - - -

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IN CASE OF INSUFFICIENT VENTILATION, WEAR SUITABLE RESPIRATORY EQUIPMENT.

REVIEWS, STANDARDS, AND REGULATIONS

OEL=MAK

ACGIH TLV-NONE, SIMPLE ASPHYXIAN

85INA8 6,1107,91

MSHA STANDARD: ASPHYXIANTS/GASES

DTLWS* 3,24,73

OSHA PEL (CONSTRUC): SIMPLE ASPHYXIAN-INERT GASES AND VAPORS

CFRGR 29,1926.55,94

OSHA PEL (SHIPYARD): SIMPLE ASPHYXIAN - INERT GAS AND VAPOR

CFRGR 29,1915.1000,93

OEL-THE NETHERLANDS: ASPHYXIAN JAN93

OEL-UNITED KINGDOM: ASPHYXIAN JAN93

OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA CHECK ACGIH TLV

OEL IN NEW ZEALAND, SINGAPORE, VIETNAM CHECK ACGIH TLV

NOHS 1974: HZD 50865; NIS 119; TNF 8908; NOS 106; TNE 147122

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NOES 1983: HZD X3142; NIS 33; TNF 1658; NOS 37; TNE 30050; TFE 6624
NOES 1983: HZD 50865; NIS 159; TNF 19784; NOS 155; TNE 622276; TFE
316139 .

EPA TSCA SECTION 8(B) CHEMICAL INVENTORY

EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, OCTOBER 1995

SECTION 16. - - - - - OTHER INFORMATION- - - - -

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