

ATERIAL SAFETY DATA SHEET

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

CATALOG #: 295477
NAME: METHANE, 99.0+%

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

CAS #: 74-82-8
MF: CH4
EC NO: 200-812-7

SYNONYMS

FIRE DAMP * MARSH GAS * METHANE (ACGIH:OSHA) * METHANE, COMPRESSED (UN1971) (DOT) * METHANE, REFRIGERATED LIQUID (CRYOGENIC LIQUID) (UN1972) (DOT) * METHYL HYDRIDE * NATURAL GAS, COMPRESSED (WITH HIGH METHANE CONTENT) (UN1971) (DOT) * NATURAL GAS, REFRIGERATED LIQUID (CRYOGENIC LIQUID) (WITH HIGH METHANE CONTENT) (UN1972) (DOT) * UN1971 (DOT) * UN1972 (DOT) *

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

LABEL PRECAUTIONARY STATEMENTS

FLAMMABLE (USA DEFINITION)
EXTREMELY FLAMMABLE (EUROPEAN DEFINITION)
DANGER: FLAMMABLE HIGH-PRESSURE GAS.
KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING.
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

DO NOT EXTINGUISH BURNING GAS IF FLOW CANNOT BE SHUT OFF IMMEDIATELY.
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.
DANGER: FLAMMABLE HIGH-PRESSURE GAS.

UNUSUAL FIRE AND EXPLOSIONS HAZARDS

VAPOR MAY TRAVEL CONSIDERABLE DISTANCE TO SOURCE OF IGNITION AND FLASH BACK.
MAY FORM EXPLOSIVE MIXTURES WITH AIR.

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

EVACUATE AREA AND KEEP PERSONNEL UPWIND.
SHUT OFF ALL SOURCES OF IGNITION.
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

DO A 061836
CONFIDENTIAL

A FIRE OR EXPLOSION MAY RESULT WHEN METHANE COMES IN CONTACT WITH:
FLUORINE, CHLORINE, BROMINE, IODINE, BROMINE PENTAFLUORIDE, CHLORINE
TRIFLUORIDE, IODINE HEPTAFLUORIDE, LIQUID OXYGEN, TRIOXYGEN
DIFLUORIDE, DIOXYGEN DIFLUORIDE OR DIOXYGENYL TETRAFLUOROBORATE.

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
EXPOSURE ABOVE THE ACGIH TLV.

DO NOT BREATHE GAS.

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

AVOID PROLONGED OR REPEATED EXPOSURE.

KEEP TIGHTLY CLOSED.

KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAME.

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: -161 C

MELTING POINT: -183 C

EXPLOSION LIMITS IN AIR:

UPPER

15%

LOWER

5%

AUTOIGNITION TEMPERATURE:

998 F

536C

VAPOR DENSITY: .55

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

INCOMPATIBILITIES

STRONG OXIDIZING AGENTS

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS

CARBON MONOXIDE, CARBON DIOXIDE

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

ACUTE EFFECTS

MAY BE HARMFUL IF INHALED.

EXPOSURE CAN CAUSE:

NAUSEA, HEADACHE AND VOMITING

ADDITIONAL INFORMATION

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

RTECS #: PA1490000

METHANE

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 - - - - -

EUROPEAN INFORMATION

EC INDEX NO: 601-001-00-4

EXTREMELY FLAMMABLE

R 12

EXTREMELY FLAMMABLE.

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S 9

KEEP CONTAINER IN A WELL-VENTILATED PLACE.

S 16

KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING.

S 33

TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGES.

VIEWS, STANDARDS, AND REGULATIONS

OEL=MAK

ACGIH TLV-NONE, SIMPLE ASPHYXIAN

85INA8 6,901,91

MSHA STANDARD: ASPHYXIANTS/GASES

DTLWS* 3,22,73

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

CFRGBR 29,1926.55,94

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

CFRGBR 29,1915.1000,93

OEL-AUSTRALIA: ASPHYXIAN JAN93

OEL-BELGIUM: ASPHYXIAN JAN93

OEL-HUNGARY: ASPHYXIAN JAN93

OEL-THE NETHERLANDS: ASPHYXIAN JAN93

OEL-SWITZERLAND: TWA 10000 PPM (6700 MG/M3) 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 45655; NIS 28; TNF 729; NOS 41; TNE 12323

NOES 1983: HZD 45655; NIS 30; TNF 3141; NOS 41; TNE 65649; TFE 2728

EPA TSCA SECTION 8(B) CHEMICAL INVENTORY

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

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

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