

ATERIAL SAFETY DATA SHEET

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

CATALOG #: 58356
NAME: 2-METHYLPROPANE

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

CAS #: 75-28-5
MF: C4H10
EC NO: 200-857-2

SYNONYMS

ISOBUTANE (DOT) * ISOBUTANE MIXTURES (DOT) * 2-METHYLPROPANE * UN1969 (DOT) *

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

LABEL PRECAUTIONARY STATEMENTS

FLAMMABLE (USA DEFINITION)
HIGHLY FLAMMABLE (EUROPEAN DEFINITION)
EXTREMELY FLAMMABLE LIQUEFIED GAS.
DANGER: FLAMMABLE HIGH-PRESSURE LIQUID AND GAS.
KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING.
TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGES.
IN CASE OF INSUFFICIENT VENTILATION, WEAR SUITABLE RESPIRATORY EQUIPMENT.
WEAR SUITABLE PROTECTIVE CLOTHING.
CYLINDER TEMPERATURE SHOULD NOT EXCEED 125 F(52 C).
DO NOT PUNCTURE OR INCINERATE THIS CYLINDER.

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

IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES.
IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH SOAP AND COPIOUS AMOUNTS OF WATER.
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

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

SF ION 6. - - - - - ACCIDENTAL RELEASE MEASURES- - - - -

EVACUATE AREA AND KEEP PERSONNEL UPWIND.
WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY RUBBER GLOVES.
EVACUATE AREA.
SHUT OFF LEAK IF THERE IS NO RISK.

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

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REFER TO SECTION 8.

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

CHEMICAL SAFETY GOGGLES.

COMPATIBLE CHEMICAL-RESISTANT GLOVES.

SAFETY SHOWER AND EYE BATH.

AVOID CONTACT AND INHALATION.

AVOID PROLONGED OR REPEATED EXPOSURE.

WASH THOROUGHLY AFTER HANDLING.

KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAME.

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

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.

WARNING: SUCK-BACK INTO CYLINDER MAY CAUSE RUPTURE.

USE BACK-FLOW-PREVENTIVE DEVICE IN PIPING.

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

APPEARANCE AND ODOR

COLORLESS GAS

PHYSICAL PROPERTIES

BOILING POINT: -12 C

MELTING POINT: -160 C

EXPLOSION LIMITS IN AIR:

UPPER	8.3%
LOWER	1.4%

AUTOIGNITION TEMPERATURE: 863 F 461C

VAPOR PRESSURE: 1536MM 21 C 72.2PSI 37.7 C

VAPOR DENSITY: 2.01 @ 21 C

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.

MAY CAUSE IRRITATION.

CAN CAUSE RAPID SUFFOCATION.

EXPOSURE CAN CAUSE:

NARCOTIC EFFECT

DERMATITIS

RTECS #: TZ4300000

PROPANE, 2-METHYL-

TOXICITY DATA

IHL-RAT LC50:57 PPH/15M HUTODJ 1,239,82

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 FLUKA CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.

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

EUROPEAN INFORMATION

HIGHLY FLAMMABLE

R 12

EXTREMELY FLAMMABLE LIQUEFIED GAS.

HIGHLY FLAMMABLE

S 16

KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING.

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TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGES.

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IN CASE OF INSUFFICIENT VENTILATION, WEAR SUITABLE
RESPIRATORY EQUIPMENT.

S 36

WEAR SUITABLE PROTECTIVE CLOTHING.

REVIEWS, STANDARDS, AND REGULATIONS

-- OEL=MAK

ACGIH TLV-TWA 800 PPM

85INA8 6,160,91

OEL-GERMANY:TWA 1000 PPM (2350 MG/M3) JAN93

OEL-SWITZERLAND:TWA 800 PPM (1900 MG/M3) JAN93

OEL-UNITED KINGDOM:TWA 600 PPM (1430 MG/M3);STEL 750 PPM JAN93

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

OEL IN NEW ZEALAND, SINGAPORE, VIETNAM CHECK ACGIH TLV

NOHS 1974: HZD 81851; NIS 360; TNF 118992; NOS 199; TNE 1193478

NOES 1983: HZD 81851; NIS 377; TNF 110810; NOS 233; TNE 1795168; TFE
556159

EPA TSCA SECTION 8(B) CHEMICAL INVENTORY

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

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

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