MATERIAL SAFETY DATA SHEET

SECTION 1. - - - - - - - - - CHEMICAL IDENTIFICATION- - - - - - - - - -
CATALOG #: 82090
NAME: 1-PROPANOL

SECTION 2. - - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - - -
CAS #: 71-23-8
MF: C3H8O
EC NO: 200-746-9
SYNONYMS
ALCOOL PROPILICO (ITALIAN) * ALCOOL PROPYLIQUE (FRENCH) * ETHYL CARBINOL * 1-HYDROXYPROPANE * OPTAL * OSMOSOL EXTRA * PROPANOL * PROPANOL-1 * 1-PROPANOL * PROPANOLE (GERMAN) * PROPANOLEN (DUTCH) * PROPANOLI (ITALIAN) * N-PROPYL ALCOHOL * 1-PROPYL ALCOHOL * N-PROPYL ALCOHOL (ACGIH:OSHA) * N-PROPYL ALCOHOL (GERMAN) * PROPYLIC ALCOHOL *
PROPYLEWY ALKOHL (POLISH) *

SECTION 3. - - - - - - - - - - HAZARDS IDENTIFICATION - - - - - - - - - -
LABEL PRECAUTIONARY STATEMENTS
FLAMMABLE (USA)
HIGHLY FLAMMABLE (EU)
IRRITANT
RISK OF SERIOUS DAMAGE TO EYES.
VAPORS MAY CAUSE DROWSINESS AND DIZZINESS.
TARGET ORGAN(S):
NERVES
LIVER
KEEP CONTAINER TIGHTLY CLOSED.
KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING.
AVOID CONTACT WITH SKIN.
IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.
WEAR EYE/FACE PROTECTION.

SECTION 4. - - - - - - - - - - FIRST-AID MEASURES- - - - - - - - - -
IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS.
CALL A PHYSICIAN.
IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH SOAP AND copious AMOUNTS OF WATER.
IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH copious AMOUNTS OF WATER FOR AT LEAST 15 MINUTES.

SECTION 5. - - - - - - - - - FIRE FIGHTING MEASURES - - - - - - - - - -
EXTINGUISHING MEDIA
WATER SPRAY.
CARBON DIOXIDE, DRY CHEMICAL POWDER OR APPROPRIATE FOAM.
SPECIAL FIREFIGHTING PROCEDURES
WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.
UNUSUAL FIRE AND EXPLOSIONS HAZARDS
FLAMMABLE LIQUID.
EMITS TOXIC FUMES UNDER FIRE CONDITIONS.
VAPOR MAY TRAVEL CONSIDERABLE DISTANCE TO SOURCE OF IGNITION AND FLASH BACK.
CONTAINER EXPLOSION MAY OCCUR UNDER FIRE CONDITIONS.
SECTION 6. - - - - - - - - ACCIDENTAL RELEASE MEASURES—- - - - - - - -
WEAR RESPIRATOR, CHEMICAL SAFETY GOGGLES, RUBBER BOOTS AND HEAVY
RUBBER GLOVES.
COVER WITH DRY-LIME, SAND, OR SODA ASH. PLACE IN COVERED CONTAINERS
USING NON-SPARKING TOOLS AND TRANSPORT OUTDOORS.
VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.
EVACUATE AREA.
SHUT OFF ALL SOURCES OF IGNITION.
SECTION 7. - - - - - - - - HANDLING AND STORAGE—- - - - - - - -
REFER TO SECTION 8.
SECTION 8. - - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION—- - - - -
SAFETY SHOWER AND EYE BATH.
USE NONSPARKING TOOLS.
MECHANICAL EXHAUST REQUIRED.
WASH THOROUGHLY AFTER HANDLING.
WASH CONTAMINATED CLOTHING BEFORE REUSE.
AVOID BREATHING VAPOR.
AVOID CONTACT WITH EYES, SKIN AND CLOTHING.
AVOID PROLONGED OR REPEATED EXPOSURE.
NIOSH/MSHA-APPROVED RESPIRATOR.
COMPATIBLE CHEMICAL-RESISTANT GLOVES.
CHEMICAL SAFETY GOGGLES.
KEEP CONTAINER CLOSED.
KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAME.
STORE IN A COOL DRY PLACE.
SECTION 9. - - - - - - - - PHYSICAL AND CHEMICAL PROPERTIES—- - - - -
PHYSICAL PROPERTIES
BOILING POINT: 97 C
MELTING POINT: -127 C
FLASHPOINT 59F
15C
EXPLOSION LIMITS IN AIR:
  UPPER 13.7 %
  LOWER 2.1 %
VAPOR PRESSURE: 14.9 MMHG @ 20 C
SOLUBILITY:
  WATER -Z26070
SPECIFIC GRAVITY: 0.804
EVAPORATION RATE: 1.0
VAPOR DENSITY: 2.1 G/L
ODOR THRESHOLD: 2.6 PPM
VISCOSITY 2.0 PAS
SWISS POISON CLASS: 4
SECTION 10. - - - - - - - - - STABILITY AND REACTIVITY—- - - - - - - -
STABILITY
STABLE.
INCOMPATIBILITIES
STRONG OXIDIZING AGENTS
HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
CARBON MONOXIDE, CARBON DIOXIDE
HAZARDOUS POLYMERIZATION
WILL NOT OCCUR.
SECTION 11. - - - - - - - - - TOXICOLOGICAL INFORMATION—- - - - - - - -
ACUTE EFFECTS
MAY CAUSE SKIN IRRITATION.
MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN.
CAUSES SEVERE EYE IRRITATION.
MAY BE HARMFUL IF INHALED.
MATERIAL MAY BE IRRITATING TO MUCOUS MEMBRANES AND UPPER
RESPIRATORY TRACT.
MAY BE HARMFUL IF SWALLOWED.
CAN CAUSE CNS DEPRESSION.
PROLONGED EXPOSURE CAN CAUSE:
NARCOTIC EFFECT
DRYING, CRACKING, OR IRRITATION OF THE SKIN.
LD
LC
CHRONIC EFFECTS
TARGET ORGAN(S):
NERVES
LIVER
RTECS #: UH8225000
PROPYL ALCOHOL
IRRITATION DATA
SKN-RBT 500 MG OPEN MLD                       UCDS** 6/28/1972
EYE-RBT 20 MG/24H MOD                         85JCAE -,191,1986
TOXICITY DATA
ORL-WMN LD50:5700 MG/KG                       ATXKA8 16,84,1956
ORL-RAT LD50:1870 MG/KG                       AMIHBC 10,61,1954
IPR-RAT LD50:2164 MG/KG                       EVHPAZ 61,321,1985
IVN-RAT LD50:590 MG/KG                       EVHPAZ 61,321,1985
ORL-MUS LD50:6800 MG/KG                       PSDTAP 9,276,1968
IHL-MUS LC50:48 GM/M3                         GTPZAB 18(3),48,1974
IPR-MUS LD50:3125 MG/KG                       EVHPAZ 61,321,1985
SCU-MUS LD50:4700 MG/KG                       TXAPA9 18,185,1971
IVN-MUS LD50:697 MG/KG                        EVHPAZ 61,321,1985
ORL-RBT LD50:2825 MG/KG                       IMSUAI 41,31,1972
SKN-RBT LD50:5040 MG/KG                       AMIHBC 10,61,1954
IPR-RBT LD50:515 MG/KG                        EVHPAZ 61,321,1985
IVN-RBT LD50:483 MG/KG                        EVHPAZ 61,321,1985
IPR-GPG LD50:1208 MG/KG                       EVHPAZ 61,321,1985
IPR-HAM LD50:2338 MG/KG                       EVHPAZ 61,321,1985
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 - - - - - - - - -
CONTACT A LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE OF
THIS MATERIAL.
BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND
SCRUBBER BUT EXERT EXTRA CARE IN IGNITING AS THIS MATERIAL IS HIGHLY
FLAMMABLE.
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
EC INDEX NO: 603-003-00-0
HIGHLY FLAMMABLE
IRRITANT
R 11
HIGHLY FLAMMABLE.
R 41
RISK OF SERIOUS DAMAGE TO EYES.
R 67
VAPORS MAY CAUSE DROWSINESS AND DIZZINESS.
S 7
KEEP CONTAINER TIGHTLY CLOSED.
S 16
KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING.
S 24
AVOID CONTACT WITH SKIN.
S 26
IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF
WATER AND SEEK MEDICAL ADVICE.
S 39
WEAR EYE/FACE PROTECTION.
REVIEWS, STANDARDS, AND REGULATIONS
OEL=MAK
ACGIH TLV-STEEL 250 PPM (SKIN) DTLVS* TLV/BEI, 1999
ACGIH TLV-TWA 200 PPM (SKIN) DTLVS* TLV/BEI, 1999
EPA FIFRA 1988 PESTICIDE SUBJECT TO REGISTRATION OR RE-REGISTRATION
Fereac 54, 7740, 1989
MSHA STANDARD-AIR: TWA 200 PPM (490 MG/M3)
DTLV* 3, 217,1971
OSHA PEL (GEN INDU): 8H TWA 200 PPM (500 MG/M3)
CFRGR 29, 1910.1000, 1994
OSHA PEL (CONSTRUCTION): 8H TWA 200 PPM (500 MG/M3)
CFRGR 29, 1926.55, 1994
OSHA PEL (SHIPYARD): 8H TWA 200 PPM (500 MG/M3)
CFRGR 29, 1915.1000, 1993
OSHA PEL (FED CONT): 8H TWA 200 PPM (500 MG/M3)
CFRGR 41, 50-204.50, 1994
OEL-AUSTRALIA: TWA 200 PPM (500 MG/M3), STEL 250 PPM, SKIN, JAN 1993
OEL-AUSTRIA: MAK 200 PPM (500 MG/M3), JAN 1999
OEL-BELGIUM: TWA 200 PPM (492 MG/M3), STEL 250 PPM, SKIN, JAN 1993
OEL-DENMARK: TWA 200 PPM (500 MG/M3), SKIN, JAN 1999
OEL-FINLAND: TWA 200 PPM (500 MG/M3), STEL 250 PPM, SKIN, JAN 1999
OEL-FRANCE: VME 200 PPM (500 MG/M3), JAN 1999
OEL-HUNGARY: TWA 100 MG/M3, STEL 200 MG/M3, JAN 1993
OEL-THE NETHERLANDS: MAC-TGG 200 PPM (500 MG/M3), SKIN, JAN 1999
OEL-NORWAY: TWA 100 PPM (245 MG/M3), JAN 1999
OEL-POLAND: MAC (TWA) 200 MG/M3, MAC (STEL) 600 MG/M3, JAN 1999
OEL-RUSSIA: STEL 10 MG/M3, JAN 1993
OEL-SWEDEN: NGV 150 PPM (350 MG/M3), KTV 250 PPM (600 MG/M3), JAN 1999
OEL-SWITZERLAND: MAK-W 200 PPM (500 MG/M3), SKIN, JAN 1999
OEL-TURKEY: TWA 200 PPM (500 MG/M3), JAN 1993
OEL-UNITED KINGDOM: TWA 200 PPM (500 MG/M3), STEL 250 PPM, SKIN, SEP 2000
OEL IN ARGENTINA, BULGARIA, COLOMBIA, JORDAN, KOREA CHECK ACGIH TLV;
OEL IN NEW ZEALAND, SINGAPORE, VIETNAM CHECK ACGIH TLV
NIOSH REL TO PROPYL ALCOHOL-AIR: TWA 200 PPM (SK); STEL 250 PPM (SK)
NIOSH* DHHS #92-100, 1992
NOHS 1974: HZD M0256; NIS 151; TNE 17186; NOS 103, TNE 122603
NOES 1983: HZD M0256; NIS 130; TNE 17036; NOS 99; TNE 226129; TFE 84196
EPA GENETOX PROGRAM 1988, NEGATIVE: IN VITRO SCE-NONHUMAN
EPA TSCA SECTION 8(B) CHEMICAL INVENTORY
EPA TSCA SECTION 8(D) UNPUBLISHED HEALTH/SAFETY STUDIES
EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, JANUARY 2001
NIOSH ANALYTICAL METHOD, 1994: ALCOHOLS II, 1401
SECTION 16. - - - - - - - - - - OTHER INFORMATION- - - - - - - - - - - -
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