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M A T E R I A L S A F E T Y D A T A S H E E T

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 * PROPANOLEN (GERMAN) * PROPANOLEN (DUTCH) *
PROPANOLI (ITALIAN) * N-PROPYL ALCOHOL * 1-PROPYL ALCOHOL * N-PROPYL
ALCOHOL (ACGIH:OSHA) * N-PROPYL ALKOHOL (GERMAN) * PROPYLIC ALCOHOL *
PROPYLOWY ALKOHOL (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
EYE-RBT 20 MG/24H MOD

UCDS** 6/28/1972
85JCAE -,191,1986

TOXICITY DATA
ORL-WMN LDLO: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-STEL 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)
 DTLVS* 3,217,1971
 OSHA PEL (GEN INDU):8H TWA 200 PPM (500 MG/M3)
 CFRGBR 29,1910.1000,1994
 OSHA PEL (CONSTRUC):8H TWA 200 PPM (500 MG/M3)
 CFRGBR 29,1926.55,1994
 OSHA PEL (SHIPYARD):8H TWA 200 PPM (500 MG/M3)
 CFRGBR 29,1915.1000,1993
 OSHA PEL (FED CONT):8H TWA 200 PPM (500 MG/M3)
 CFRGBR 41,50-204.50,1994
 OEL-AUSTRALIA: TWA 200 PPM (500 MG/M3), STEL 250 PPM, SKIN, JAN1993
 OEL-AUSTRIA: MAK 200 PPM (500 MG/M3), JAN1999
 OEL-BELGIUM: TWA 200 PPM (492 MG/M3), STEL 250 PPM, SKIN, JAN1993
 OEL-DENMARK: TWA 200 PPM (500 MG.M3), SKIN, JAN1999
 OEL-FINLAND: TWA 200 PPM (500 MG/M3), STEL 250 PPM, SKIN, JAN1999
 OEL-FRANCE: VME 200 PPM (500 MG/M3), JAN1999
 OEL-HUNGARY: TWA 100 MG/M3, STEL 200 MG/M3, JAN1993
 OEL-THE NETHERLANDS: MAC-TGG 200 PPM (500 MG/M3), SKIN, JAN1999
 OEL-NORWAY: TWA 100 PPM (245 MG/M3), JAN1999
 OEL-POLAND: MAC(TWA) 200 MG/M3, MAC(STEL) 600 MG/M3, JAN1999
 OEL-RUSSIA: STEL 10 MG/M3, JAN1993
 OEL-SWEDEN: NGV 150 PPM (350 MG/M3), KTV 250 PPM (600 MG/M3), JAN1999
 OEL-SWITZERLAND: MAK-W 200 PPM (500 MG/M3), SKIN, JAN1999
 OEL-TURKEY: TWA 200 PPM (500 MG/M3), JAN1993
 OEL-UNITED KINGDOM: TWA 200 PPM (500 MG/M3), STEL 250 PPM, SKIN,
 SEP2000
 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; TNF 18176; NOS 103; TNE 122603
 NOES 1983: HZD M0256; NIS 130; TNF 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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