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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 #: 443638
 NAME: ACETONE, 99.5+%, A.C.S. REAGENT (SAFETY CAN)

SECTION 2. - - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - -
 CAS #: 67-64-1
 MF: C3H6O
 EC NO: 200-662-2
 SYNONYMS
 ACETON (GERMAN, DUTCH, POLISH) * ACETONE (ACGIH:OSHA) * CHEVRON
 ACETONE * DIMETHYLFORMALDEHYDE * DIMETHYLKETAL * DIMETHYL KETONE *
 KETONE, DIMETHYL * KETONE PROPANE * BETA-KETOPROPANE * METHYL KETONE *
 PROPANONE * 2-PROPANONE * PYROACETIC ACID * PYROACETIC ETHER * RCRA
 WASTE NUMBER U002 *

SECTION 3. - - - - - HAZARDS IDENTIFICATION - - - - -
 LABEL PRECAUTIONARY STATEMENTS
 FLAMMABLE (USA)
 HIGHLY FLAMMABLE (EU)
 IRRITANT
 IRRITATING TO EYES.
 REPEATED EXPOSURE MAY CAUSE SKIN DRYNESS OR CRACKING.
 VAPORS MAY CAUSE DROWSINESS AND DIZZINESS.
 TARGET ORGAN(S):
 LIVER, KIDNEYS
 KEEP CONTAINER IN A WELL-VENTILATED PLACE.
 KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING.
 IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF
 WATER AND SEEK MEDICAL ADVICE.

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
 VAPOR MAY TRAVEL CONSIDERABLE DISTANCE TO SOURCE OF IGNITION AND
 FLASH BACK.
 CONTAINER EXPLOSION MAY OCCUR UNDER FIRE CONDITIONS.
 FLAMMABLE LIQUID.

EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

SECTION 6. - - - - - ACCIDENTAL RELEASE MEASURES- - - - -
 WEAR SELF-CONTAINED BREATHING APPARATUS, 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.
 USE NONSPARKING TOOLS.

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.
 REMOVE AND WASH CONTAMINATED CLOTHING PROMPTLY.
 WASH THOROUGHLY AFTER HANDLING.
 DO NOT BREATHE VAPOR.
 DO NOT GET IN EYES, ON SKIN, ON CLOTHING.
 AVOID PROLONGED OR REPEATED EXPOSURE.
 NIOSH/MSHA-APPROVED RESPIRATOR.
 COMPATIBLE CHEMICAL-RESISTANT GLOVES.
 CHEMICAL SAFETY GOGGLES.
 THE MATERIAL MAY SLOWLY PENETRATE PROTECTIVE GLOVES; THEREFORE IN CASE
 OF SPILLS, DISCARD GLOVES AFTER USE.
 KEEP TIGHTLY 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: 56 C
 MELTING POINT: -94 C
 FLASHPOINT 1 F
 EXPLOSION LIMITS IN AIR:
 UPPER 13%
 LOWER 2%
 AUTOIGNITION TEMPERATURE: 869 F
 VAPOR PRESSURE: 184MM 20 C 400MM 39.5 C
 SOLUBILITY:
 WATER -Z26225

MISCIBLE WITH A

CHLOROFORM, ETH
 SPECIFIC GRAVITY: 0.791
 VAPOR DENSITY: 2
 ODOR THRESHOLD: 100 - 140 PPM
 FREEZING POINT: -94.7 C
 VISCOSITY 0.303 PAS
 SWISS POISON CLASS: 5

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

STABLE.

INCOMPATIBILITIES

BASES
 OXIDIZING AGENTS
 REDUCING 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 EYE IRRITATION.
 MAY BE HARMFUL IF INHALED.
 MATERIAL MAY BE IRRITATING TO MUCOUS MEMBRANES AND UPPER
 RESPIRATORY TRACT.
 MAY BE HARMFUL IF SWALLOWED.
 CAUSES DERMATITIS.

CHRONIC EFFECTS

TARGET ORGAN(S):

LIVER, KIDNEYS

THIS PRODUCT IS OR CONTAINS A COMPONENT THAT IS NOT CLASSIFIABLE AS
 TO ITS CARCINOGENICITY BASED ON ITS IARC, ACGIH, NTP OR EPA
 CLASSIFICATION.

RTECS #: AL3150000

ACETONE

IRRITATION DATA

EYE-HMN 500 PPM	JIHTAB 25,282,1943
SKN-RBT 395 MG OPEN MLD	UCDS** 5/7/1970
SKN-RBT 500 MG/24H MLD	85JCAE -,280,1986
EYE-RBT 20 MG SEV	AJOPAA 29,1363,1946
EYE-RBT 20 MG/24H MOD	85JCAE -,280,1986

TOXICITY DATA

UNR-MAN LDLO:1159 MG/KG	85DCAI 2,73,1970
ORL-RAT LD50:5800 MG/KG	JTEHD6 15,609,1985
IHL-RAT LC50:50100 MG/M3/8H	AIHAAP 20,364,1959
IVN-RAT LD50:5500 MG/KG	NPIRI* 1,1,1974
ORL-MUS LD50:3 GM/KG	PCJOAU 14,162,1980
IHL-MUS LC50:44 GM/M3/4H	CUTOEX 1,47,1993
IPR-MUS LD50:1297 MG/KG	SCCUR* -,1,1961
ORL-RBT LD50:5340 MG/KG	FAONAU 48A,86,1970
SKN-GPG LD50:>9400 UL/KG	TXAPA9 7,559,1965

TARGET ORGAN DATA

BRAIN AND COVERINGS (RECORDINGS FROM SPECIFIC AREAS OF CNS)
 SENSE ORGANS AND SPECIAL SENSES (OTHER OLFACTION EFFECTS)
 SENSE ORGANS AND SPECIAL SENSES (CONJUNCTIVA IRRITATION)
 BEHAVIORAL (GENERAL ANESTHETIC)
 BEHAVIORAL (MUSCLE WEAKNESS)
 BEHAVIORAL (MUSCLE CONTRACTION OR SPASTICITY)
 LUNGS, THORAX OR RESPIRATION (RESPIRATORY DEPRESSION)
 LUNGS, THORAX OR RESPIRATION (OTHER CHANGES)
 KIDNEY, URETER, BLADDER (RENAL FUNCTION TESTS DEPRESSED)
 EFFECTS ON FERTILITY (POST-IMPLANTATION MORTALITY)
 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 ALDRICH CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.

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

EC INDEX NO: 606-001-00-8

HIGHLY FLAMMABLE

IRRITANT

R 11

HIGHLY FLAMMABLE.

R 36

IRRITATING TO EYES.

R 66

REPEATED EXPOSURE MAY CAUSE SKIN DRYNESS OR CRACKING.

R 67

VAPORS MAY CAUSE DROWSINESS AND DIZZINESS.

S 9

KEEP CONTAINER IN A WELL-VENTILATED PLACE.

S 16

KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING.

S 26

IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.

REVIEWS, STANDARDS, AND REGULATIONS

OEL=MAK

ACGIH TLV-NOT CLASSIFIABLE AS A HUMAN CARCINOGEN DTLVS* TLV/BEI,1999

ACGIH TLV-STEL 750 PPM DTLVS* TLV/BEI,1999

ACGIH TLV-TWA 500 PPM DTLVS* TLV/BEI,1999

EPA FIFRA 1988 PESTICIDE SUBJECT TO REGISTRATION OR RE-REGISTRATION

FEREAC 54,7740,1989

MSHA STANDARD-AIR:TWA 1000 PPM (2400 MG/M3)

DTLVS* 3,3,1971

OSHA PEL (GEN INDU):8H TWA 1000 PPM (2400 MG/M3)

CFRGBR 29,1910.1000,1994

OSHA PEL (CONSTRUC):8H TWA 1000 PPM (2400 MG/M3)

CFRGBR 29,1926.55,1994

OSHA PEL (SHIPYARD):8H TWA 1000 PPM (2400 MG/M3)

CFRGBR 29,1915.1000,1993

OSHA PEL (FED CONT):8H TWA 1000 PPM (2400 MG/M3)

CFRGBR 41,50-204.50,1994

OEL-AUSTRALIA: TWA 500 PPM (1185 MG/M3), STEL 1000 PPM, JAN1993

OEL-AUSTRIA: MAK 750 PPM (1780 MG/M3), JAN1999

OEL-BELGIUM: TWA 750 PPM (1780 MG/M3), STEL 1000 PPM, JAN1993

OEL-DENMARK: TWA 250 PPM (600 MG/M3), JAN1999

OEL-FINLAND: TWA 500 PPM (1200 MG/M3), STEL 625 PPM (1500 MG/M3), JAN1993

OEL-FRANCE: VME 750 PPM (1800 MG/M3), JAN1999

OEL-GERMANY: MAK 500 PPM (1200 MG/M3), JAN1999

OEL-HUNGARY: TWA 600 MG/M3, STEL 1200 MG/M3, JAN1993

OEL-INDIA: TWA 750 PPM (1780 MG/M3), STEL 1000 PPM (2375 MG/M3), JAN1993

OEL-JAPAN: OEL 200 PPM (470 MG/M3), JAN1999

OEL-THE NETHERLANDS: MAC-TGG 750 PPM (1780 MG/M3), JAN1999

OEL-NORWAY: TWA 125 PPM (295 MG/M3), JAN1999

OEL-THE PHILIPPINES: TWA 1000 PPM (2400 MG/M3), JAN1993

OEL-POLAND: MAC(TWA) 600 MG/M3, MAC(STEL) 1800 MG/M3, JAN1999

OEL-RUSSIA: TWA 200 PPM, STEL 200 MG/M3, JAN1993

OEL-SWEDEN: NGV 250 PPM (600 MG/M3), KTV 500 PPM (1200 MG/M3), JAN1999

OEL-SWITZERLAND: MAK-W 500 PPM (1200 MG/M3), STEL 1000 PPM (2400 MG/M3), JAN1999

OEL-TURKEY: TWA 1000 PPM (2400 MG/M3), JAN1993

OEL-UNITED KINGDOM: TWA 750 PPM (1810 MG/M3), STEL 1500 PPM (3620 MG/M3),

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

OEL IN NEW ZEALAND, SINGAPORE, VIETNAM CHECK ACGIH TLV

NIOSH REL TO ACETONE-AIR:10H TWA 250 PPM

NIOSH* DHHS #92-100,1992

NOHS 1974: HZD 02820; NIS 350; TNF 99713; NOS 188; TNE 1287794

NOES 1983: HZD 02820; NIS 358; TNF 97342; NOS 215; TNE 1740164; TFE 540313

EPA GENETOX PROGRAM 1988, NEGATIVE: SHE-CLONAL ASSAY; CELL TRANSFORM.-MOUSE EMBRYO

EPA GENETOX PROGRAM 1988, NEGATIVE: CELL TRANSFORM.-RLV F344 RAT EMBRYO

EPA GENETOX PROGRAM 1988, NEGATIVE: IN VITRO CYTOGENETICS-NONHUMAN
EPA GENETOX PROGRAM 1988, NEGATIVE: HISTIDINE REVERSION-AMES TEST; IN
VITRO SCE-NONHUMAN
EPA TSCA SECTION 8(B) CHEMICAL INVENTORY
EPA TSCA SECTION 8(D) UNPUBLISHED HEALTH/SAFETY STUDIES
ON EPA IRIS DATABASE
EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, JANUARY 2001
NIOSH ANALYTICAL METHOD, 1994: KETONES I, 1300
NIOSH ANALYTICAL METHOD, 1996: VOLATILE ORGANIC COMPOUND, 2549
NTP TOXICITY STUDIES, RPT# TOX-03, OCTOBER 2000
OSHA ANALYTICAL METHOD #ID-69

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