

## MATERIAL SAFETY DATA SHEET

### ACETONE

CAS #: 67-64-1  
MF: C<sub>3</sub>H<sub>6</sub>O  
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

#### 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.

#### 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.

#### FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:  
WATER SPRAY.  
CARBON DIOXIDE, DRY CHEMICAL POWDER OR APPROPRIATE FOAM.  
WATER MAY BE EFFECTIVE FOR COOLING, BUT MAY NOT EFFECT  
EXTINGUISHMENT.

#### 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.

#### 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.

#### HANDLING AND STORAGE

##### 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.

THE MATERIAL MAY SLOWLY PENETRATE PROTECTIVE GLOVES; THEREFORE IN CASE OF SPILLS, DISCARD GLOVES AFTER USE.

KEEP CONTAINER CLOSED.

KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAME.

STORE IN A COOL DRY PLACE.

#### PHYSICAL AND CHEMICAL 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 ALC, 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

#### STABILITY AND REACTIVITY

STABLE.

#### INCOMPATIBILITIES

BASES; OXIDIZING AGENTS; REDUCING AGENTS.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS  
CARBON MONOXIDE, CARBON DIOXIDE  
HAZARDOUS POLYMERIZATION WILL NOT OCCUR.

#### TOXICOLOGICAL INFORMATION

##### ACUTE EFFECTS

CAUSES 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.  
TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND  
TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

##### CHRONIC EFFECTS

THIS PRODUCT IS OR CONTAINS A COMPONENT THAT IS NOT CLASSIFIABLE AS  
TO ITS CARCINOGENICITY BASED ON ITS IARC, ACGIH, NTP OR EPA  
CLASSIFICATION.  
TARGET ORGAN(S): LIVER, KIDNEYS  
RTECS #: AL3150000

##### 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.

ECOLOGICAL INFORMATION  
DATA NOT YET AVAILABLE.

#### 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.

#### 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.

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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