

J.T.BAKER INC. 222 RED SCHOOL LANE, PHILLIPSBURG, NJ 08865  
M A T E R I A L   S A F E T Y   D A T A   S H E E T  
24-HOUR EMERGENCY TELEPHONE -- (908) 859-2151  
CHEMTREC # (800) 424-9300 -- NATIONAL RESPONSE CENTER # (800) 424-8802

A0806 -03

ACETYL CHLORIDE

PAGE: 1

EFFECTIVE: 01/04/94

ISSUED: 01/15/94

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SECTION I - PRODUCT IDENTIFICATION

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PRODUCT NAME: ACETYL CHLORIDE  
COMMON SYNONYMS: ACETIC ACID CHLORIDE; ACETIC CHLORIDE; ETHANOYL CHLORIDE  
CHEMICAL FAMILY: ACID CHLORIDES  
FORMULA: CH<sub>3</sub>COCL  
FORMULA WT.: 78.50  
CAS NO.: 75-36-5  
NIOSH/RTECS NO.: A06390000  
PRODUCT USE: LABORATORY REAGENT  
PRODUCT CODES: 9013

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PRECAUTIONARY LABELING

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BAKER SAF-T-DATA\* SYSTEM

HEALTH	-	3	SEVERE (POISON)
FLAMMABILITY	-	3	SEVERE (FLAMMABLE)
REACTIVITY	-	3	SEVERE (WATER REACTIVE)
CONTACT	-	4	EXTREME (CORROSIVE)

LABORATORY PROTECTIVE EQUIPMENT

GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES; CLASS B  
EXTINGUISHER

U.S. PRECAUTIONARY LABELING

DANGER

FLAMMABLE. CONTACT WITH WATER OR MOIST AIR LIBERATES TOXIC FUMES. CAUSES  
SEVERE BURNS. HARMFUL IF INHALED.  
KEEP AWAY FROM HEAT, SPARKS, FLAME. DO NOT GET IN EYES, ON SKIN, ON CLOTHING.  
AVOID BREATHING VAPOR. KEEP IN TIGHTLY CLOSED CONTAINER. USE WITH ADEQUATE  
VENTILATION. WASH THOROUGHLY AFTER HANDLING. IN CASE OF FIRE, USE DRY  
CHEMICAL OR CARBON DIOXIDE. DO NOT USE WATER. IN CASE OF SPILL, SOAK UP WITH  
SAND OR EARTH. FLUSH SPILL AREA WITH WATER.

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PRECAUTIONARY LABELING (CONTINUED)

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INTERNATIONAL LABELING

HIGHLY FLAMMABLE. REACTS VIOLENTLY WITH WATER. CAUSES BURNS.  
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.

SAF-T-DATA\* STORAGE COLOR CODE: RED STRIPE (STORE SEPARATELY)

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SECTION II - COMPONENTS

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<u>COMPONENT</u>	<u>CAS NO.</u>	<u>WEIGHT %</u>	<u>OSHA/PEL</u>	<u>ACGIH/TLV</u>
ACETYL CHLORIDE	75-36-5	90-100	N/E	N/E

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SECTION III - PHYSICAL DATA

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BOILING POINT: 51 C (123 F)  
(AT 760 MM HG)

VAPOR PRESSURE (MMHG): 750  
(20 C)

MELTING POINT: -112 C (-169 F)  
(AT 760 MM HG)

VAPOR DENSITY (AIR=1): 2.7

SPECIFIC GRAVITY: 1.10  
(H2O=1)

EVAPORATION RATE: N/A

SOLUBILITY(H2O): DECOMPOSES

% VOLATILES BY VOLUME: 100  
(21 C)

PH: N/A

ODOR THRESHOLD (P.P.M.): N/A

PHYSICAL STATE: LIQUID

COEFFICIENT WATER/OIL DISTRIBUTION: N/A

APPEARANCE & ODOR: COLORLESS LIQUID. PUNGENT ODOR.

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SECTION IV - FIRE AND EXPLOSION HAZARD DATA

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FLASH POINT (CLOSED CUP): 4 C (40 F)

NFPA 704M RATING: 3-3-2 W

AUTOIGNITION TEMPERATURE: 389 C (734 F)

FLAMMABLE LIMITS: UPPER - N/A

LOWER - N/A

FIRE EXTINGUISHING MEDIA

USE DRY CHEMICAL OR CARBON DIOXIDE. DO NOT USE WATER.

SPECIAL FIRE-FIGHTING PROCEDURES

FIREFIGHTERS SHOULD WEAR PROPER PROTECTIVE EQUIPMENT AND SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN POSITIVE PRESSURE MODE. MOVE EXPOSED CONTAINERS FROM FIRE AREA IF IT CAN BE DONE WITHOUT RISK. USE WATER TO KEEP FIRE-EXPOSED CONTAINERS COOL; DO NOT GET WATER INSIDE CONTAINERS.

UNUSUAL FIRE & EXPLOSION HAZARDS

GIVES OFF FLAMMABLE VAPORS. VAPORS MAY FORM EXPLOSIVE MIXTURE WITH AIR. CLOSED CONTAINERS EXPOSED TO HEAT MAY EXPLODE. REACTS VIOLENTLY WITH WATER.

TOXIC GASES PRODUCED

PHOSGENE, HYDROGEN CHLORIDE

EXPLOSION DATA-SENSITIVITY TO MECHANICAL IMPACT

NONE IDENTIFIED.

EXPLOSION DATA-SENSITIVITY TO STATIC DISCHARGE

NONE IDENTIFIED.

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SECTION V - HEALTH HAZARD DATA

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THRESHOLD LIMIT VALUE (TLV/TWA): NOT ESTABLISHED

SHORT-TERM EXPOSURE LIMIT (STEL): NOT ESTABLISHED

PERMISSIBLE EXPOSURE LIMIT (PEL): NOT ESTABLISHED

TOXICITY OF COMPONENTS

NO INFORMATION IS AVAILABLE

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SECTION V - HEALTH HAZARD DATA (CONTINUED)

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CARCINOGENICITY:    NTP: NO        IARC: NO        Z LIST: NO        OSHA REG: NO

CARCINOGENICITY  
NONE IDENTIFIED.

REPRODUCTIVE EFFECTS  
NONE IDENTIFIED.

EFFECTS OF OVEREXPOSURE

INHALATION:            COUGHING, CHEST PAINS, IRRITATION OF NOSE AND THROAT

SKIN CONTACT:        NONE IDENTIFIED

EYE CONTACT:         NONE IDENTIFIED

SKIN ABSORPTION: NONE IDENTIFIED

INGESTION:            SEVERE BURNS TO MOUTH, THROAT, AND STOMACH

CHRONIC EFFECTS: NONE IDENTIFIED

TARGET ORGANS  
NONE IDENTIFIED

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE  
NONE IDENTIFIED

PRIMARY ROUTES OF ENTRY  
NONE INDICATED

EMERGENCY AND FIRST AID PROCEDURES

INGESTION:            CALL A PHYSICIAN.

INHALATION:        IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.

SKIN CONTACT: IN CASE OF CONTACT, IMMEDIATELY FLUSH SKIN WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. WASH CLOTHING BEFORE RE-USE.



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SECTION V - HEALTH HAZARD DATA (CONTINUED)

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EYE CONTACT: IN CASE OF EYE CONTACT, IMMEDIATELY FLUSH WITH PLENTY OF  
WATER FOR AT LEAST 15 MINUTES.

SARA/TITLE III HAZARD CATEGORIES AND LISTS

ACUTE: YES CHRONIC: YES FLAMMABILITY: YES PRESSURE: NO REACTIVITY: YES

EXTREMELY HAZARDOUS SUBSTANCE: NO  
CERCLA HAZARDOUS SUBSTANCE: YES CONTAINS ACETYL CHLORIDE (RQ = 5000 LBS)  
SARA 313 TOXIC CHEMICALS: NO  
TSCA INVENTORY: YES

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SECTION VI - REACTIVITY DATA

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STABILITY: STABLE HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS TO AVOID: HEAT, MOISTURE, FLAME

INCOMPATIBLES: WATER, ALCOHOLS, STRONG BASES, STRONG OXIDIZING  
AGENTS, AMINES

DECOMPOSITION PRODUCTS: PHOSGENE, HYDROGEN CHLORIDE

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SECTION VII - SPILL & DISPOSAL PROCEDURES

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STEPS TO BE TAKEN IN THE EVENT OF A SPILL OR DISCHARGE

WEAR SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING. SHUT  
OFF IGNITION SOURCES; NO FLARES, SMOKING, OR FLAMES IN AREA. STOP LEAK IF  
YOU CAN DO SO WITHOUT RISK. DO NOT USE WATER. TAKE UP WITH SAND OR OTHER  
NON-COMBUSTIBLE ABSORBENT MATERIAL AND PLACE INTO CONTAINER FOR LATER  
DISPOSAL. FLUSH SPILL AREA WITH WATER.

DISPOSAL PROCEDURE

DISPOSE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL  
ENVIRONMENTAL REGULATIONS.

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SECTION VIII - INDUSTRIAL PROTECTIVE EQUIPMENT

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VENTILATION: USE ADEQUATE GENERAL OR LOCAL EXHAUST VENTILATION TO  
KEEP FUME OR DUST LEVELS AS LOW AS POSSIBLE.

RESPIRATORY PROTECTION: NONE REQUIRED WHERE ADEQUATE VENTILATION CONDITIONS  
EXIST. IF AIRBORNE CONCENTRATION IS HIGH, A CHEMICAL  
CARTRIDGE RESPIRATOR WITH ACID/ ORGANIC CARTRIDGE IS  
RECOMMENDED. IF CONCENTRATION EXCEEDS CAPACITY OF  
CARTRIDGE RESPIRATOR, A SELF-CONTAINED BREATHING  
APPARATUS IS ADVISED.

EYE/SKIN PROTECTION: SAFETY GOGGLES AND FACE SHIELD, UNIFORM, PROTECTIVE  
SUIT, RUBBER GLOVES ARE RECOMMENDED.

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SECTION IX - STORAGE AND HANDLING PRECAUTIONS

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SAF-T-DATA\* STORAGE COLOR CODE: RED STRIPE (STORE SEPARATELY)

STORAGE REQUIREMENTS

KEEP CONTAINER TIGHTLY CLOSED. STORE AWAY FROM WATER OR LOCATIONS WHERE  
WATER MAY BE USED TO EXTINGUISH FIRE. STORE IN A COOL, WELL-VENTILATED  
AREA AWAY FROM SOURCES OF HEAT, FLAME, OR IGNITION.

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SECTION X - TRANSPORTATION DATA AND ADDITIONAL INFORMATION

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DOMESTIC (D.O.T.)

PROPER SHIPPING NAME: ACETYL CHLORIDE  
HAZARD CLASS: 3, 8  
UN/NA: UN1717 REPORTABLE QUANTITY: 5000 LBS. PACKAGING GROUP: II  
LABELS: 3 FLAMMABLE LIQUID, CORROSIVE  
REGULATORY REFERENCES: 49CFR 172.101

INTERNATIONAL (I.M.O.)

PROPER SHIPPING NAME: ACETYL CHLORIDE  
HAZARD CLASS: 3.2, 8  
UN: UN1717 MARINE POLLUTANTS: NO  
LABELS: FLAMMABLE LIQUID, CORROSIVE  
REGULATORY REFERENCES: 49CFR PART 176; IMDG CODE

I.M.O. PAGE: 3172  
PACKAGING GROUP: II

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SECTION X - TRANSPORTATION DATA AND ADDITIONAL INFORMATION (CONTINUED)

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AIR (I.C.A.O.)

PROPER SHIPPING NAME: ACETYL CHLORIDE

HAZARD CLASS: 3.2, 8

UN: UN1717

PACKAGING GROUP: II

LABELS: FLAMMABLE LIQUID, CORROSIVE

REGULATORY REFERENCES: 49CFR PART 175; ICAO=== WE BELIEVE THE TRANSPORTATION DATA AND REFERENCES CONTAINED HEREIN TO BE FACTUAL AND THE OPINION OF QUALIFIED EXPERTS. THE DATA IS MEANT AS A GUIDE TO THE OVERALL CLASSIFICATION OF THE PRODUCT AND IS NOT PACKAGE SIZE SPECIFIC, NOR SHOULD IT BE TAKEN AS A WARRANTY OR REPRESENTATION FOR WHICH THE COMPANY ASSUMES LEGAL RESPONSIBILITY.=== THE INFORMATION IS OFFERED SOLELY FOR YOUR CONSIDERATION, INVESTIGATION, AND VERIFICATION. ANY USE OF THE INFORMATION MUST BE DETERMINED BY THE USER TO BE IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS. SEE SHIPPER REQUIREMENTS 49CFR 171.2, CERTIFICATION 172.204, AND EMPLOYEE TRAINING 49 CFR 173.1(B).

U.S. CUSTOMS HARMONIZATION NUMBER: 29159000001

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NOTE: WHEN HANDLING LIQUID PRODUCTS, SECONDARY PROTECTIVE CONTAINERS MUST BE USED FOR CARRYING.

-N/A = NOT APPLICABLE, OR NOT AVAILABLE;

N/E = NOT ESTABLISHED.-

THE INFORMATION IN THIS MATERIAL SAFETY DATA SHEET MEETS THE REQUIREMENTS OF THE UNITED STATES OCCUPATIONAL SAFETY AND HEALTH ACT AND REGULATIONS PROMULGATED THEREUNDER (29 CFR 1910.1200 ET. SEQ.) AND THE CANADIAN WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM. THIS DOCUMENT IS INTENDED ONLY AS A GUIDE TO THE APPROPRIATE PRECAUTIONARY HANDLING OF THE MATERIAL BY A PERSON TRAINED IN, OR SUPERVISED BY A PERSON TRAINED IN, CHEMICAL HANDLING. THE USER IS RESPONSIBLE FOR DETERMINING THE PRECAUTIONS AND DANGERS OF THIS CHEMICAL FOR HIS OR HER PARTICULAR APPLICATION. DEPENDING ON USAGE, PROTECTIVE CLOTHING INCLUDING EYE AND FACE GUARDS AND RESPIRATORS MUST BE USED TO AVOID CONTACT WITH MATERIAL OR BREATHING CHEMICAL VAPORS/FUMES.

EXPOSURE TO THIS PRODUCT MAY HAVE SERIOUS ADVERSE HEALTH EFFECTS. THIS CHEMICAL MAY INTERACT WITH OTHER SUBSTANCES. SINCE THE POTENTIAL USES ARE SO VARIED, BAKER CANNOT WARN OF ALL OF THE POTENTIAL DANGERS OF USE

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OR INTERACTION WITH OTHER CHEMICALS OR MATERIALS. BAKER WARRANTS THAT THE CHEMICAL MEETS THE SPECIFICATIONS SET FORTH ON THE LABEL. BAKER DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR PURPOSE.

THE USER SHOULD RECOGNIZE THAT THIS PRODUCT CAN CAUSE SEVERE INJURY AND EVEN DEATH, ESPECIALLY IF IMPROPERLY HANDLED OR THE KNOWN DANGERS OF USE ARE NOT HEEDDED. READ ALL PRECAUTIONARY INFORMATION. AS NEW DOCUMENTED GENERAL SAFETY INFORMATION BECOMES AVAILABLE, BAKER WILL PERIODICALLY REVISE THIS MATERIAL SAFETY DATA SHEET.

NOTE: CHEMTREC, CANUTEC, AND NATIONAL RESPONSE CENTER EMERGENCY TELEPHONE NUMBERS ARE TO BE USED ONLY IN THE EVENT OF CHEMICAL EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT INVOLVING CHEMICALS. ALL NON-EMERGENCY QUESTIONS SHOULD BE DIRECTED TO CUSTOMER SERVICE (1-800-JTBAKER) FOR ASSISTANCE.

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APPROVED BY QUALITY ASSURANCE DEPARTMENT.