

Material Safety Data Sheet

Acetyl chloride

ACC# 95847

Section 1 - Chemical Product and Company Identification

MSDS Name: Acetyl chloride**Catalog Numbers:** AC151270000, AC151270010, AC151270025, AC151275000, AC219470000, AC219470250, AC219472500, A27-250**Synonyms:** Acetic acid chloride; Ethanoyl chloride.**Company Identification:**

Fisher Scientific
1 Reagent Lane
Fair Lawn, NJ 07410

For information, call: 201-796-7100**Emergency Number:** 201-796-7100**For CHEMTREC assistance, call:** 800-424-9300**For International CHEMTREC assistance, call:** 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
75-36-5	Acetyl chloride	98+	200-865-6

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: APHA: 10 max liquid. Flash Point: 4 deg C.

Danger! Reacts violently with water. Causes burns by all exposure routes. **Flammable liquid and vapor.** Harmful if swallowed.**Target Organs:** Respiratory system, gastrointestinal system, eyes, skin.**Potential Health Effects****Eye:** Causes eye burns. Lachrymator (substance which increases the flow of tears).**Skin:** Causes skin burns. May be harmful if absorbed through the skin.**Ingestion:** Harmful if swallowed. Causes gastrointestinal tract burns.**Inhalation:** Causes chemical burns to the respiratory tract. Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. May be harmful if inhaled. Can produce delayed pulmonary edema.**Chronic:** Laboratory experiments have resulted in mutagenic effects.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Do not induce vomiting. Get medical aid immediately. Call a poison control center.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Water reactive. Material will react with water and may release a flammable and/or toxic gas. Containers may explode in the heat of a fire. Flammable liquid and vapor. Reacts violently with water.

Extinguishing Media: Do NOT use alcohol foams. Use carbon dioxide or dry chemical. DO NOT USE WATER!

Flash Point: 4 deg C (39.20 deg F)

Autoignition Temperature: 390 deg C (734.00 deg F)

Explosion Limits, Lower: 7.3 vol %

Upper: 19 vol %

NFPA Rating: (estimated) Health: 3; Flammability: 3; Instability: 2; Special Hazard: -W-

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Wear a self contained breathing apparatus and appropriate personal protection. (See Exposure Controls, Personal Protection section). Remove all sources of ignition. Use a spark-proof tool. Do not expose spill to water. Do not get water inside containers. Do not let this chemical enter the environment.

Section 7 - Handling and Storage

Handling: Do not allow water to get into the container because of violent reaction. Use spark-proof tools and explosion proof equipment. Do not get in eyes, on skin, or on clothing. Take precautionary measures against static discharges. Keep away from heat, sparks and flame. Do not ingest or inhale. Do not allow contact with water. Use only in a chemical fume hood.

Storage: Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Flammables-area. Water free area. Store under nitrogen.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Acetyl chloride	none listed	none listed	none listed

OSHA Vacated PELs: Acetyl chloride: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: APHA: 10 max

Odor: pungent odor

pH: Not available.

Vapor Pressure: 320 mbar @ 20 deg C

Vapor Density: 2.7 (air=1)

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: 51 deg C @ 760 mmHg

Freezing/Melting Point: -112 deg C

Decomposition Temperature: Not available.

Solubility: Reacts.

Specific Gravity/Density: 1.100

Molecular Formula: C₂H₃ClO

Molecular Weight: 78.5

Section 10 - Stability and Reactivity

Chemical Stability: Reacts violently with water.

Conditions to Avoid: Incompatible materials, ignition sources, excess heat, exposure to moist air or water.

Incompatibilities with Other Materials: Strong bases, strong oxidizing agents, alcohols, amines, water, dimethyl sulfoxide, organic acids, phenols.

Hazardous Decomposition Products: Hydrogen chloride, phosgene, carbon monoxide, carbon dioxide,

acetic acid.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#:

CAS# 75-36-5: AO6390000

LD50/LC50:

CAS# 75-36-5:

Oral, rat: LD50 = 910 mg/kg;

Carcinogenicity:

CAS# 75-36-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information found

Teratogenicity: No information found

Reproductive Effects: No information found

Mutagenicity: Mutagenic effects have occurred in experimental animals.

Neurotoxicity: No information found

Other Studies:

Section 12 - Ecological Information

Ecotoxicity: No data available. No information available.

Environmental: No information available.

Physical: No information available.

Other: Do not empty into drains.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series:

CAS# 75-36-5: waste number U006 (Corrosive waste, Reactive waste, Toxic waste).

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	ACETYL CHLORIDE	ACETYL CHLORIDE
Hazard Class:	3	3(8)
UN Number:	UN1717	UN1717

Packing Group:	II	II
Additional Info:		FLASHPOINT 4C

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 75-36-5 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

CAS# 75-36-5: 40 CFR 799.5085

Section 12b

CAS# 75-36-5: Section 4, 1 % de minimus concentration

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

CAS# 75-36-5: 5000 lb final RQ; 2270 kg final RQ

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 75-36-5: immediate, delayed, fire, reactive.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 75-36-5 can be found on the following state right to know lists: New Jersey, Pennsylvania, Massachusetts.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

F C

Risk Phrases:

R 11 Highly flammable.

R 14 Reacts violently with water.

R 34 Causes burns.

Safety Phrases:

- 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.
- S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- S 9 Keep container in a well-ventilated place.

WGK (Water Danger/Protection)

CAS# 75-36-5: 1

Canada - DSL/NDSL

CAS# 75-36-5 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of B2, E, F.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

Section 16 - Additional Information
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MSDS Creation Date: 9/02/1997

Revision #10 Date: 3/04/2008

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.