

# Material Safety Data Sheet

Created: 10/09/2008

## ➤ Section1 - IDENTIFICATION OF THE SUBSTANCE AND THE COMPANY

MSDS Name: Acetyl chloride

Synonym: Acetic chloride, ethanoyl chloride

Supplier: Nanjing Chemical Material Corp.

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## ➤ Section 2 - COMPOSITION, INFORMATION ON INGREDIENTS

CAS#	Chemical Name	content	EINECS#
75-36-5	Acetyl chloride	99	200-865-6

Hazard Symbols: F C

Risk Phrases: 11 14 34

## ➤ Section 3 - HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

Highly flammable. Reacts violently with water. Causes burns. Moisture sensitive.

### Potential Health Effects

Eye:

Vapors may cause eye irritation. Contact with liquid is corrosive to the eyes and causes severe burns.

Lachrymator (substance which increases the flow of tears). Causes redness and pain. Lachrymator

(substance which increases the flow of tears).

Skin:

Contact with liquid is corrosive and causes severe burns and ulceration. Causes redness and pain.

Ingestion:

Harmful if swallowed. Causes gastrointestinal tract burns. May cause corrosion and permanent tissue destruction of the esophagus and digestive tract. May cause headache. May cause nausea and vomiting.

Inhalation:

Causes severe irritation of upper respiratory tract with coughing, burns, breathing difficulty, and possible coma. May cause severe irritation of the respiratory tract with sore throat, coughing, shortness of breath and delayed lung edema. 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.

Chronic:

No information found.

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#### ➔ **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. Discard contaminated clothing in a manner which limits further exposure.

Ingestion:

Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

Inhalation:

Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician:

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## ➔ **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 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. Wear appropriate protective clothing to prevent contact with skin and eyes. Wear a self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products. Contact with moisture or water may generate sufficient heat to ignite nearby combustible materials. Vapors mixed with air can explode when ignited. Flammable liquid and vapor.

Extinguishing Media:

Do NOT use alcohol foams. Use dry chemical to fight fire. Use carbon dioxide. DO NOT USE WATER!

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## ➔ **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.

Remove all sources of ignition.

Use a spark-proof tool.

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## ➔ **Section 7 - HANDLING and STORAGE**

Handling:

Wash thoroughly after handling. Use with adequate ventilation.

Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Take precautionary measures against static discharges. Do not allow contact with water. Use only in a chemical fume hood. Prevent build up of vapors to explosive concentration.

Storage:

Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed

container. Keep under a nitrogen blanket. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from water. Flammables-area.

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## ➔ **Section 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION**

Engineering Controls:

Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels.

Personal Protective Equipment Eyes: Not available.

Skin:

Wear appropriate protective gloves and clothing to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to minimize contact with skin.

Respirators:

A NIOSH/MSHA approved or European Standard EN 149 air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149.

Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

## ➔ **Section 9 - PHYSICAL AND CHEMICAL PROPERTIES**

Physical State: Clear liquid

Color: APHA: 10 max

Odor: pungent odor

pH: Not available.

Vapor Pressure: 280 mbar @ 20 deg C

Viscosity: Not available.

Boiling Point: 51 deg C @ 760.00mm Hg

Freezing/Melting Point: -112 deg C

Autoignition Temperature: 390 deg C ( 734.00 deg F)

Flash Point: 4 deg C ( 39.20 deg F)

Explosion Limits, lower: 7.30 vol %

Explosion Limits, upper: 19.00 vol %

Decomposition Temperature:

Solubility in water: Reacts.

Specific Gravity/Density: 1.1040g/cm<sup>3</sup>

Molecular Formula: CH<sub>3</sub>COCl

Molecular Weight: 78.50

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### ➔ **Section 10 - STABILITY AND REACTIVITY**

Chemical Stability:

Stable.

Conditions to Avoid:

Incompatible materials, ignition sources, contact with water, excess heat.

Incompatibilities with Other Materials:

Water, strong oxidizing agents, strong bases, alcohols, amines, dimethyl sulfoxide, organic acids, phenols.

Hazardous Decomposition Products:

Hydrogen chloride, phosgene, carbon monoxide, carbon dioxide, acetic acid.

Hazardous Polymerization: Will not occur.

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### ➔ **Section 11 - TOXICOLOGICAL INFORMATION**

RTECS#:

CAS# 75-36-5: AO6390000 LD50/LC50:

CAS# 75-36-5: Oral, rat: LD50 = 910 mg/kg.

Carcinogenicity:

Acetyl chloride - Not listed by ACGIH, IARC, or NTP.

Other:

See actual entry in RTECS for complete information.

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## ➔ Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity:

Fish toxicity: LC50 fathead minnow 42 mg/L/96H (The Dictionary of Substances and their Effects, 1992)

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## ➔ Section 13 - DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with federal, state, and local regulations.

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## ➔ Section 14 - TRANSPORT INFORMATION

IATA

Shipping Name: ACETYL CHLORIDE

Hazard Class: 3

UN Number: 1717

Packing Group: II

IMO

Shipping Name: ACETYL CHLORIDE

Hazard Class: 3

UN Number: 1717

Packing Group: II

RID/ADR

Shipping Name: ACETYL CHLORIDE

Hazard Class: 3

UN Number: 1717

Packing group: II

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

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## ➤ **Section 15 - REGULATORY INFORMATION**

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 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.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 75-36-5: 1

United Kingdom Occupational Exposure Limits

United Kingdom Maximum Exposure Limits

Canada

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

CAS# 75-36-5 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

US FEDERAL

TSCA

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