

Material Safety Data Sheet

acc. to OSHA and ANSI

Printing date 11/11/2008

Reviewed on 10/23/2008

1 Identification of substance:

Product details:

Product name: Acryloyl chloride

Stock number: L10363

Manufacturer/Supplier:

Alfa Aesar, A Johnson Matthey Company
 Johnson Matthey Catalog Company, Inc.
 30 Bond Street
 Ward Hill, MA 01835-8099
 Emergency Phone: (978) 521-6300
 CHEMTREC: (800) 424-9300
 Web Site: www.alfa.com

Information Department: Health, Safety and Environmental Department

Emergency information:

During normal hours the Health, Safety and Environmental Department.
 After normal hours call Chemtrec at (800) 424-9300.

2 Composition/Data on components:

Chemical characterization:

Description: (CAS#)

Acryloyl chloride (CAS# 814-68-6): 100%

Identification number(s):

EINECS Number: 212-399-0

3 Hazards identification

Hazard description:



T+ Very toxic
 F Highly flammable

Information pertaining to particular dangers for man and environment

R 11 Highly flammable.
 R 14 Reacts violently with water.
 R 26 Very toxic by inhalation.
 R 34 Causes burns.

Classification system

HMIS ratings (scale 0-4)

(Hazardous Materials Identification System)

HEALTH	3	Health (acute effects) = 3
FIRE	3	Flammability = 3
REACTIVITY	2	Reactivity = 2

4 First aid measures

General information

Immediately remove any clothing soiled by the product.
 Remove breathing apparatus only after contaminated clothing has been completely removed.
 In case of irregular breathing or respiratory arrest provide artificial respiration.

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After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm.

Seek immediate medical advice.

After skin contact

Immediately wash with water and soap and rinse thoroughly.

Seek immediate medical advice.

After eye contact

Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing Seek immediate medical advice.

5 Fire fighting measures**Suitable extinguishing agents**

CO₂, sand, extinguishing powder. Do not use water.

For safety reasons unsuitable extinguishing agents Water

Special hazards caused by the material, its products of combustion or resulting gases:

Reacts violently with water

In case of fire, the following can be released:

Carbon monoxide and carbon dioxide

Hydrogen chloride (HCl)

Protective equipment:

Wear self-contained respirator.

Wear fully protective impervious suit.

6 Accidental release measures**Person-related safety precautions:**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Keep away from ignition sources

Measures for environmental protection:

Do not allow material to be released to the environment without proper governmental permits.

Measures for cleaning/collecting:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

Keep away from ignition sources.

Additional information:

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage**Handling****Information for safe handling:**

Handle under dry protective gas.

Keep container tightly sealed.

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Store in cool, dry place in tightly closed containers.

Ensure good ventilation at the workplace.

Open and handle container with care.

Information about protection against explosions and fires:

Keep ignition sources away.

Protect against electrostatic charges.

Fumes can combine with air to form an explosive mixture.

Storage

Requirements to be met by storerooms and receptacles: Refrigerate

Information about storage in one common storage facility:

Store away from water/moisture.

Store away from oxidizing agents.

Store away from strong bases.

Further information about storage conditions:

Store under dry inert gas.

Protect from humidity and water.

This product is moisture sensitive.

Keep container tightly sealed.

8 Exposure controls and personal protection

Additional information about design of technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Components with limit values that require monitoring at the workplace:

Not required.

Additional information: No data

Personal protective equipment

General protective and hygienic measures

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

Breathing equipment:

Use suitable respirator when high concentrations are present.

Protection of hands:

Impervious gloves

Check protective gloves prior to each use for their proper condition.

Material of gloves

The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer.

Eye protection:

Safety glasses

Tightly sealed goggles

Full face protection

Body protection: Protective work clothing.

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9 Physical and chemical properties:

General Information	
Form:	Liquid
Color:	Colorless Pale yellow
Odor:	Not determined
Change in condition	
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	72-76°C (162-169°F)
Sublimation temperature / start:	Not determined
Flash point:	-4°C (25°F)
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Explosion limits:	
Lower:	Not determined
Upper:	Not determined
Vapor pressure:	Not determined
Density at 20°C (68°F):	1.114 g/cm ³
Solubility in / Miscibility with Water:	Reacts violently

10 Stability and reactivity**Thermal decomposition / conditions to be avoided:**

Decomposition will not occur if used and stored according to specifications.

Materials to be avoided:

Water/moisture
Oxidizing agents
Bases

Dangerous reactions Reacts violently with water

Dangerous products of decomposition:

Carbon monoxide and carbon dioxide
Hydrogen chloride (HCl)

11 Toxicological information**Acute toxicity:****LD/LC50 values that are relevant for classification:**

Inhalative	LC50/2H	92 mg/m ³ /2H (mouse)
	LCLo/4H	25 ppm/4H (rat)

Primary irritant effect:**on the skin:**

Corrosive effect on skin and mucous membranes.
Irritant to skin and mucous membranes.

on the eye:

Strong corrosive effect.
Irritating effect.

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Sensitization: No sensitizing effects known.

Subacute to chronic toxicity:

Subacute to chronic toxicity:

The Registry of Toxic Effects of Chemical Substances (RTECS) reports the following effects in laboratory animals:

Sense Organs and Special Senses (Eye) - iritis.

Behavioral - ataxia.

Lungs, Thorax, or Respiration - emphysema.

Subacute to chronic toxicity:

Corrosive materials are acutely destructive to the respiratory tract, eyes, skin and digestive tract. Eye contact may result in permanent damage and complete vision loss. Inhalation may result in respiratory effects such as inflammation, edema, and chemical pneumonitis. May cause coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. Ingestion may cause damage to the mouth, throat and esophagus. May cause skin burns or irritation depending on the severity of the exposure.

Additional toxicological information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

Swallowing will lead to a strong corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

12 Ecological information:

General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Do not allow material to be released to the environment without proper governmental permits.

13 Disposal considerations

Product:

Recommendation

Consult state, local or national regulations to ensure proper disposal.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

14 Transport information

DOT regulations:



Hazard class:

3

Identification number:

UN2924

Packing group:

II

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Proper shipping name (technical name):

FLAMMABLE LIQUID, CORROSIVE, N.O.S.
(Acryloyl chloride)

Label

3+8

Land transport ADR/RID (cross-border)



ADR/RID class:

3 (FC) Flammable liquids

Danger code (Kemler):

338

UN-Number:

2924

Packaging group:

II

Description of goods:

2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S.
(Acryloyl chloride)

Maritime transport IMDG:



IMDG Class:

3

UN Number:

2924

Label

3+8

Packaging group:

II

Proper shipping name:

FLAMMABLE LIQUID, CORROSIVE, N.O.S.
(Acryloyl chloride)

Air transport ICAO-TI and IATA-DGR:



ICAO/IATA Class:

3

UN/ID Number:

2924

Label

3+8

Packaging group:

II

Proper shipping name:

FLAMMABLE LIQUID, CORROSIVE, N.O.S.
(Acryloyl chloride)

15 Regulations

Product related hazard informations:

Hazard symbols:

T+ Very toxic

F Highly flammable

Risk phrases:

11 Highly flammable.

14 Reacts violently with water.

26 Very toxic by inhalation.

34 Causes burns.

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Safety phrases:

- 4 Keep away from living quarters.
8 Keep container dry.
9 Keep container in a well-ventilated place.
20 When using do not eat or drink.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
28 After contact with skin, wash immediately with plenty of water
30 Never add water to this product.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
45 In case of accident or if you feel unwell, seek medical advice immediately.

National regulations

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

All components of this product are listed on the Canadian Non-Domestic Substances List (NDSL).

Information about limitation of use:

For use only by technically qualified individuals.

This product contains antimony and is subject to the reporting requirements of section 302 of the Emergency Planning and Community Right to know Act of 1986 and 40CFR372.

16 Other information:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing MSDS: Health, Safety and Environmental Department.

Contact: Paul V. Connolly