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Safety Data Sheet according to 1907/2006/EC, Article 31

Printing date 20.08.2010 Revision: 20.08.2010

1 Identification of substance

**Product details** 

Trade name Methoxycarbonylsulfenyl chloride

Stock number:

Alfa Aesar GmbH & Co.KG Manufacturer/Supplier:

Benzstrasse 3 D-76185 Karlsruhe / Germany

Informing department: Emergency information:

Product safety department. Giftnotruf Universität Mainz / Poison Information Center Mainz www.giftinfo.uni-mainz.de Telefon:+49(0)6131/19240

2 Hazards identification

Hazard designation:

C Corrosive

Information pertaining to particular dangers

for man and environment

**GHS** label elements

Prevention:

R 10 Flammable. R 34 Causes burns. Danger

H314 - Causes severe skin burns and eye damage.

Warning

H226 - Flammable liquid and vapour.
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin Response:

P303+P351+P353 IF ON SKIN (or half). Remove/Take on infinediately all contaminated clothing. Kinse ski with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Storage: Disposal:

3 Composition/information on ingredients

Chemical characterization: Designation: (CAS#) Identification number(s):

Methoxycarbonylsulfenyl chloride (CAS# 26555-40-8): 100%

**EINECS Number:** 247-801-3

4 First aid measures

**General information** 

Instantly remove any clothing soiled by the product.
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
Seek immediate medical advice.
Instantly wash with water and soap and rinse thoroughly.
Seek immediate medical advice.
Rinse opened eye for several minutes under running water. Then consult doctor After inhalation

After skin contact

Rinse opened eye for several minutes under running water. Then consult doctor. Seek immediate medical advice. After eye contact After swallowing

5 Fire fighting measures

Suitable extinguishing agents For safety reasons unsuitable extinguishing

products of combustion or flue gases:

agents
Special hazards caused by the material, its

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

Can be released in case of fire: Carbon monoxide and carbon dioxide Hydrogen chloride (HCI) Sulphur oxides (SOx) Wear self-contained breathing apparatus.

Protective equipment:

Wear full protective suit.

6 Accidental release measures

Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation Person-related safety precautions:

Measures for environmental protection:

Measures for cleaning/collecting:

Keep away from ignition sources

Do not allow material to be released to the environment without proper governmental permits. Do not allow material to be released to the environment without proper governmental permits. Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Use neutralizing agent.
Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.
Keep away from ignition sources.
See Section 7 for information on safe handling
See section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

7 Handling and storage

Additional information:

Handling Information for safe handling:

Handle under dry protective gas. Keep containers tightly sealed. Ensure good ventilation/exhaustion at the workplace.

Information about protection against

explosions and fires:

Keep ignition sources away - Do not smoke. Protect against electrostatic charges. Fumes can combine with air to form an explosive mixture.

Storage Requirements to be met by storerooms and containers: Information about storage in one common

storage facility:

Refrigerate

Store away from oxidizing agents. Store away from strong bases. Protect from heat.

Store away from water.

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#### Trade name Methoxycarbonylsulfenyl chloride

Further information about storage

conditions:

Store under dry inert gas.
This product is moisture sensitive.
Keep container tightly sealed.
Protect from humidity and keep away from water.
Store in a locked cabinet or with access restricted to technical experts or their assistants.

Refrigerate

#### 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 critical values that require

monitoring at the workplace: Additional information:

Not required. No data

Personal protective equipment General protective and hygienic measures

Breathing equipment: Protection of hands:

The usual precautionary measures should be adhered to in handling the chemicals.
Keep away from foodstuffs, beverages and food.
Instantly remove any soiled and impregnated garments.
Wash hands during breaks and at the end of the work.
Avoid contact with the eyes and skin.
Use breathing protection with high concentrations.
Check protective gloves prior to each use for their proper condition.
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. Material of gloves

Impervious gloves Not determined

Penetration time of glove material

Eye protection:

Not determined
Safety glasses
Tightly sealed safety glasses.
Face protection
Full face protection
Protective work clothing.

**Body protection:** 

### 9 Physical and chemical properties:

# **General Information**

Liquid Yellow Form: Colour: Smell: Acrid

Change in condition

Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start:

Not determined 73-74°C (100mm Hg) Not determined

Flash point: Ignition temperature:

Not determined Not determined

54°C

Decomposition temperature: Critical values for explosion:

Upper: Steam pressure:

Density at 20°C

Not determined Not determined Not determined

1.398 g/cm<sup>3</sup>

10 Stability and reactivity

Thermal decomposition / conditions to be

avoided: Materials to be avoided:

No decomposition if used and stored according to specifications.

Water/moisture Heat

Oxidizing agents Bases Active metals

**Dangerous reactions:** 

Dangerous products of decomposition:

No dangerous reactions known Carbon monoxide and carbon dioxide Hydrogen chloride (HCI)

Súlphúr oxides (SOx)

#### 11 Toxicological information

Acute toxicity: Primary irritant effect: on the skin:

Corrosive effect on skin and mucous membranes.

on the eye: Sensitization: Additional toxicological information:

Strong corrosive effect.

No sensitizing effect known.

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

Swallowing will lead to a strong caustic 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:

Additional ecological information: General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.
Do not allow material to be released to the environment without proper governmental permits.

# 13 Disposal considerations

Product: Recommendation

Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal.

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Uncleaned packagings: Recommendation:

Disposal must be made according to official regulations.

14 Transport information

Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)





ADR/RID-GGVS/E Class:

Kemler Number:

8 (CF1) Corrosive substances.

**UN-Number:** Packaging group: Label

2920 II

Designation of goods: Limited quantities (LQ) Transport category

8+3 2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S. (Methoxycarbonylsulfenyl chloride)

2 D/E

Tunnel restriction code

Maritime transport IMDG/GGVSea:





IMDG/GGVSea Class:

UN Number: Label Packaging group: EMS Number:

8 2920 8+3 II -E,S-C

Marine pollutant: Correct technical name:

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

Air transport ICAO-TI and IATA-DGR:





ICAO/IATA Class: UN/ID Number:

l abel Packaging group: Correct technical name: 8 2920 8+3

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

UN "Model Regulation":

UN2920, CORROSIVE LIQUID, FLAMMABLE, N.O.S., 8 (3), II

15 Regulatory information

Designation according to EC guidelines:

Code letter and hazard designation of product:

C Corrosive

Risk phrases:

10 Flammable.

Safety phrases:

34 Causes burns.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

In case of accident or if you feel unwell, seek medical advice immediately (show the label where

possible).

National regulations

Information about limitation of use:

For use only by technically qualified individuals.

Employment restrictions concerning young persons must be observed. Water hazard class 1 (Self-assessment): slightly hazardous for water.

Water hazard class: 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 data specification sheet: Health, Safety and Environmental Department.

Abbreviations and acronyms:

Health, Safety and Environmental Department.

Zachariah Holt

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Rafice of Dangerous Goods by Rail)

IMDG: International Martime Code for Dangerous Goods

IATA: International Air Transport Association

IATA: PoGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO: International Civil Aviation Organization

ICAO: TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)