

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Trade name

2-Ethoxyacetyl chloride stab. with 0.3% Magnesium oxide

Stock number:

F34443

1.2 Relevant identified uses of the substance or mixture and uses advised against.

Identified use:

SU24 Scientific research and development

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Alfa Aesar GmbH & Co.KG
A Johnson Matthey Company
Zeppelinstr. 7b
76185 Karlsruhe / Germany
Tel: +49 (0) 721 84007 280
Fax: +49 (0) 721 84007 300
Email: tech@alfa.com
www.alfa.com

Informing department:

Product safety Tel + +049 (0) 7275 988687-0

1.4 Emergency telephone number:

Carechem 24: +44 (0) 1235 239 670 (Multi-language emergency number)

Poison Information Center Mainz

www.giftinfo.uni-mainz.de Telephone: +49(0)6131/19240

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.



GHS07

Acute Tox. 4 H332 Harmful if inhaled.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

C; Corrosive

R34: Causes burns.

Xn; Harmful

R20: Harmful by inhalation.

R10: Flammable.

Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Other hazards that do not result in classification

No information known.

2.2 Label elements**Labelling according to Regulation (EC) No 1272/2008**

Hazard pictograms

Signal word

The product is classified and labelled according to the CLP regulation.

GHS02, GHS05, GHS07

Danger

Hazard-determining components of labelling:

Hazard statements

2-Ethoxyacetyl chloride

H226 Flammable liquid and vapour.

H332 Harmful if inhaled.

H314 Causes severe skin burns and eye damage.

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 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.

2.3 Other hazards**Results of PBT and vPvB assessment**

PBT:

Not applicable.

vPvB:

Not applicable.

SECTION 3: Composition/information on ingredients**3.2 Mixtures****Dangerous components:**

CAS: 14077-58-8

2-Ethoxyacetyl chloride

EINECS: 237-930-3

C R34; Xn R20

R10

99,7%

Flam. Liq. 3, H226; Skin Corr. 1B, H314; Acute Tox. 4, H332

Additional information

None known.

Non-Hazardous Ingredients

CAS: 1309-48-4

Magnesium oxide

EINECS: 215-171-9

substance with a Community workplace exposure limit

0,3%

SECTION 4: First aid measures**4.1 Description of first aid measures****General information****After inhalation**

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.

After skin contact

Instantly 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 doctor.

After swallowing

Seek medical treatment.

Safety data sheet
according to 1907/2006/EC, Article 31

Revision: 19.01.2011

Printing date 02.07.2013

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4.2 Most important symptoms and effects, both acute and delayed
4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.
No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing agents
5.2 Special hazards arising from the substance or mixture

CO₂, sand, extinguishing powder. Do not use water.
If this product is involved in a fire, the following can be released:
Carbon monoxide and carbon dioxide
Hydrogen chloride (HCl)
Metal oxide

5.3 Advice for firefighters
Protective equipment:

Wear self-contained breathing apparatus.
Wear full protective suit.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
6.2 Environmental precautions:
6.3 Methods and material for containment and cleaning up:
Prevention of secondary hazards:
6.4 Reference to other sections

Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Keep away from ignition sources
Do not allow material to be released to the environment without proper governmental permits.
Do not allow product to reach sewage system or water bodies.
Do not allow to enter the ground/soil.
Keep away from ignition sources.
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.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Information about protection against explosions and fires:
7.2 Conditions for safe storage, including any incompatibilities
Storage
Requirements to be met by storerooms and containers:
Information about storage in one common storage facility:
Further information about storage conditions:
7.3 Specific end use(s)

Handle under dry protective gas.
Keep containers tightly sealed.
Store in cool, dry place in tightly closed containers.
Ensure good ventilation/exhaustion at the workplace.
Protect against electrostatic charges.
Fumes can combine with air to form an explosive mixture.
No special requirements.
Store away from oxidizing agents.
Store away from strong bases.
Store away from water.
Store under dry inert gas.
This product is moisture sensitive.
Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.
Protect from humidity and keep away from water.
Store in a locked cabinet or with access restricted to technical experts or their assistants.
No further relevant information available.

SECTION 8: Exposure controls/personal protection

Additional information about design of technical systems:
8.1 Control parameters

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:**1309-48-4 Magnesium oxide (0,3%)**

AGW (Germany)	3* 10** mg/m ³ 2(II);*alveolengängige **einatembare Fraktion; AGS
PEL (USA)	15* mg/m ³ fume; *total particulate
TLV (USA)	10* mg/m ³ *as inhalable fraction

Additional information: No data

8.2 Exposure controls

Personal protective equipment
General protective and hygienic measures
Breathing equipment:
Protection of hands:
Material of gloves
Penetration time of glove material
Eye protection:

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.
Maintain an ergonomically appropriate working environment.
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.
Impervious gloves
Not determined
Tightly sealed safety glasses.
Full face protection

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DE/E

Trade name 2-Ethoxyacetyl chloride stab. with 0.3% Magnesium oxide
Body protection: Protective work clothing.

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SECTION 9: Physical and chemical properties
9.1 Information on basic physical and chemical properties
General Information
Appearance:

Form: Liquid
Colour: Colourless
Smell: Not determined
Odour threshold: Not determined.

pH-value: Not determined.

Change in condition

Melting point/Melting range: Not determined
Boiling point/Boiling range: Not determined
Sublimation temperature / start: Not determined
Inflammability (solid, gaseous) Not applicable.
Ignition temperature: Not determined
Decomposition temperature: Not determined
Self-inflammability: Product is not selfigniting.

Critical values for explosion:

Lower: Not determined

Upper: Not determined

Steam pressure: Not determined

Density Not determined

Relative density Not determined.

Vapour density Not determined.

Evaporation rate Not determined.

Solubility in / Miscibility with

Water: Not miscible or difficult to mix

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

dynamic: Not determined.

kinematic: Not determined.

Solvent content:

Organic solvents: 0,0 %

Solids content: 0,3 %

9.2 Other information No further relevant information available.

SECTION 10: Stability and reactivity
10.1 Reactivity

No information known.

10.2 Chemical stability

Stable under recommended storage conditions.

Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

10.3 Possibility of hazardous reactions

No dangerous reactions known

10.5 Incompatible materials:

Oxidizing agents

Bases

Water/moisture

Carbon monoxide and carbon dioxide

Metal oxide

10.6 Hazardous decomposition products:
SECTION 11: Toxicological information
11.1 Information on toxicological effects
Acute toxicity:

Harmful if inhaled.

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

LD/LC50 values that are relevant for classification:

No data

Skin irritation or corrosion:

Causes severe skin burns.

Causes serious eye damage.

Eye irritation or corrosion:

No sensitizing effect known.

Sensitization:

No effects known.

Germ cell mutagenicity:

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

Carcinogenicity:

No effects known.

Reproductive toxicity:
Specific target organ system toxicity - repeated exposure:

No effects known.

Specific target organ system toxicity - single exposure:

No effects known.

Aspiration hazard:

No effects known.

Additional toxicological information:

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

The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:

Harmful

Corrosive

SECTION 12: Ecological information
12.1 Toxicity

No further relevant information available.

12.2 Persistence and degradability

No further relevant information available.

12.3 Bioaccumulative potential

No further relevant information available.

12.4 Mobility in soil

No further relevant information available.

Additional ecological information:
General notes:

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

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.

Avoid transfer into the environment.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects

No further relevant information available.

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SECTION 13: Disposal considerations**13.1 Waste treatment methods
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.

**Uncleaned packagings:
Recommendation:**

Disposal must be made according to official regulations.

SECTION 14: Transport information**UN-Number
ADR, IMDG, IATA**

UN2920

**14.2 UN proper shipping name
ADR
IMDG, IATA**

2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S.
CORROSIVE LIQUID, FLAMMABLE, N.O.S.

**14.3 Transport hazard class(es)
ADR****Class
Label
IMDG, IATA**

8 (CF1) Corrosive substances.
8+3

**Class
Label**

8 Corrosive substances.
8+3

**Packing group
ADR, IMDG, IATA**

II

**14.5 Environmental hazards:
Marine pollutant:**

No

**14.6 Special precautions for user
Kemler Number:**

Warning: Corrosive substances.
83

**14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC
Code**

Not applicable.

Transport/Additional information:**ADR****Excepted quantities (EQ):
Limited quantities (LQ)
Transport category
Tunnel restriction code**

E2
1L
2
D/E

UN "Model Regulation":

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

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****Australian Inventory of Chemical Substances**

1309-48-4 | Magnesium oxide

Standard for the Uniform Scheduling of Drugs and Poisons

None of the ingredients is listed.

National regulations**Information about limitation of use:**

For use only by technically qualified individuals.
Employment restrictions concerning young persons must be observed.
Not applicable

Classification according to VbF:

Water hazard class 1 (Self-assessment): slightly hazardous for water.

Water hazard class:**Other regulations, limitations and prohibitive regulations****ELINCS (European List of Notified Chemical Substances)**

None of the ingredients is listed.

Substances of very high concern (SVHC) according to REACH, Article 57

None of the ingredients are listed.

REACH - Pre-registered substances

1309-48-4 | Magnesium oxide

15.2 Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

SECTION 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.

Relevant phrases

H226 Flammable liquid and vapour.
H314 Causes severe skin burns and eye damage.
H332 Harmful if inhaled.

R10 Flammable.
R20 Harmful by inhalation.
R34 Causes burns.

**Department issuing data specification sheet:
Abbreviations and acronyms:**

Health, Safety and Environmental Department.
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organization
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
VbF: Verordnung über brennbare Flüssigkeiten, Österreich (Ordinance on the storage of combustible liquids, Austria)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent