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

Printing date 30.06.2011 Revision: 29.06.2011

1 Identification of the substance/mixture and of the company/undertaking

**Product identifier** 

Trade name Quinoline-5-carboxaldehyde

Stock number:

Relevant identified uses of the substance or mixture and uses advised against
Sector of Use
SU24 Scientific research and development

Details of the supplier of the safety data sheet Manufacturer/Supplier:

Alfa Aesar GmbH & Co.KG A Johnson Matthey Company

Benzstrasse 3

Benzstrasse 3 D-76185 Karlsruhe / Germany Tel: +49 (0) 721 84007 280 Fax: +49 (0) 721 84007 300 Email: tech@alfa.com www.alfa.com

Product safety department.

Informing department:

Emergency telephone number:

Product Safety department.

Product Safety Department +049 (0) 7275 988687-0 (business hours)

Carechem 24: +44 (o) 1235 239 670 (Multi-language 24 hour emergency)

Giftnotruf Universität Mainz / Poison Information Center Mainz

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

#### 2 Hazards identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation. STOT SE 3 H335 May cause respiratory irritation.

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

Xi; Irritant

R36/37/38: Irritating to eyes, respiratory system and skin. Information concerning particular hazards for human and environment: Not application. R36/37/38: Not applicable

Label elements

Labelling according to Regulation (EC) No 1272/2008

**Hazard pictograms** 

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

(!)GHS07

Signal word Hazard statements

Precautionary statements

Warning
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H336 May cause respiratory irritation.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P321 Specific treatment (see on this label).
Store locked up.

Other hazards

Results of PBT and vPvB assessment PBT: Not applicable. Not applicable. vPvB:

#### 3 Composition/information on ingredients

Chemical characterization: Substances

(CAS#) Designation: Quinoline-5-carboxaldehyde (CAS# 22934-41-4)

#### 4 First aid measures

Description of first aid measures

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. After inhalation

After skin contact

Seek immediate medical advice.

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

### 5 Firefighting measures

Extinguishing media

Suitable extinguishing agents Special hazards arising from the substance

or mixture

CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

Can be released in case of fire: Carbon monoxide and carbon dioxide Nitrogen oxides (NOx) Possibly Hydrogen cyanide (HCN)

Advice for firefighters Protective equipment: Wear self-contained breathing apparatus. Wear full protective suit.

## 6 Accidental release measures

Personal precautions, protective equipment

and emergency procedures

Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Do not allow material to be released to the environment without proper governmental permits.

**Environmental precautions:** 

Methods and material for containment and

cleaning up: Reference to other sections

Ensure adequate ventilation. See Section 7 for information on safe handling See section 8 for information on personal protection equipment.

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#### Trade name Quinoline-5-carboxaldehyde

See Section 13 for information on disposal

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7 Handling and storage

Handling Precautions for safe handling

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.

Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Conditions for safe storage, including any incompatibilities

Storage Requirements to be met by storerooms and

containers: Information about storage in one common

storage facility:

No special requirements.

Store away from oxidizing agents. Store away from air.

Further information about storage

conditions:

No further relevant information available.

Store under dry inert gas. Keep container tightly sealed. Store in cool, dry conditions in well sealed containers. This product is air sensitive.

Specific end use(s)

8 Exposure controls/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.

Control parameters Components with critical values that require monitoring at the workplace: Additional information:

Not required. No data

Exposure controls Personal protective equipment General protective and hygienic measures

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.

Breathing equipment: Protection of hands: Material of gloves

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

Penetration time of glove material Eye protection:

**Body protection:** 

Not determined Safety glasses Face protection Protective work clothing.

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance: Form:

Crystalline powder Colour Yellow Brown

Smell: Not determined Odour threshold: Not determined

Not applicable. pH-value:

Change in condition

Ignition temperature:

Self-inflammability:

Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start: Flash point: Inflammability (solid, gaseous)

94-98°C Not determined Not determined Not applicable

Not determined Not determined

Not determined

Not determined

Not determined.

Product is not explosive.

Not determined Not determined

Danger of explosion: Critical values for explosion:

Decomposition temperature:

Upper:

Steam pressure: Not applicable. Density Not determined Relative density Not determined. Vapour density Evaporation rate Not applicable. Not applicable.

Solubility in / Miscibility with Water:

Insoluble

Segregation coefficient (n-octanol/water):

Viscosity: Not applicable. dynamic

Not applicable. No further relevant information available kínematic: Other information

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### Trade name Quinoline-5-carboxaldehyde

10 Stability and reactivity

Reactivity
Chemical stability
Thermal decomposition / conditions to be avoided:

Possibility of hazardous reactions Incompatible materials:

Hazardous decomposition products:

No decomposition if used and stored according to specifications.

No dangerous reactions known

Oxidizing agents

Air
Carbon monoxide and carbon dioxide
Nitrogen oxides (NOx)
Possibly Hydrogen cyanide (HCN)

#### 11 Toxicological information

Information on toxicological effects

Acute toxicity:

Primary irritant effect: on the skin:

on the eye: Sensitization:

Irritant for skin and mucous membranes. Irritant effect.

Additional toxicological information:

No sensitizing effect known.
To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA

12 Ecological information

Toxicity
Acquatic toxicity:
Persistence and degradability
Behaviour in environmental systems:
Bioaccumulative potential

Mobility in soil
Additional ecological information:
General notes:

Results of PBT and vPvB assessment PBT: vPvB:

Other adverse effects

Generally not hazardous for water. Do not allow material to be released to the environment without proper governmental permits.

Not applicable.

Not applicable. No further relevant information available.

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

No further relevant information available.

13 Disposal considerations

Waste treatment methods

Recommendation

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

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:

Maritime transport IMDG/GGVSea: IMDG/GGVSea Class:

Marine pollutant:

No

Air transport ICAO-TI and IATA-DGR: ICAO/IATA Class:

Special precautions for user

Transport/Additional information:

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

None

None

Not applicable.

Not dangerous according to the above specifications.

Not applicable.

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture Labelling according to Regulation (EC) No
1272/2008

The substance is classified and labelled according to

Hazard pictograms

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

GHS07

Signal word

Hazard statements

Precautionary statements

Warning
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P321 Specific treatment (see on this label).
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

National regulations

Information about limitation of use:

For use only by technically qualified individuals. Employment restrictions concerning young persons must be observed.

Generally not hazardous for water. A Chemical Safety Assessment has not been carried out. Water hazard class: Chemical safety assessment:

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.

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## Trade name Quinoline-5-carboxaldehyde

Department issuing data specification sheet: Health, Safety and Environmental Department.

Zachariah C. Holt
Global EHS Manager

Abbreviations and acronyms:

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Appl. Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Rail)
IMDG: Reglement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
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
CAS: Chemical Abstracts Service (division of the American Chemical Society)

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