Printing date 01.07.2013 Revision: 24.05.2010

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

1.1 Product identifier

3-Chloropyridine B24316, L02339 626-60-8

Trade name Stock number: CAS Number:

EC number: 210-955-7

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

S1124 Scientific research and developr 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 Zeppelinsti. 7b 76185 Karlsruhe / Germany Tel: +49 (0) 721 84007 280 Fax: +49 (0) 721 84007 300 Email: tech@alfa.com

Informing department:

www.alfa.com
www.alfa.com
product safety Tel + +049 (0) 7275 988687-0
Carechem 24: +44 (o) 1235 239 670 (Multi-language emergency number)
Poison Information Center Mainz
www.giftinfo.uni-mainz.de Telephone: +49(0)6131/19240 1.4 Emergency telephone number:

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. 1C H314 Causes severe skin burns and eye damage.

GHS07

Acute Tox. 4 H302 Harmful if swallowed.

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

C: Corrosive R34: Causes burns.

Xn; Harmful

R22: Harmful if swallowed.

Flammable.

Information concerning particular hazards for human and environment: 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

Hazard statements

Precautionary statements

Not applicable

The substance is classified and labelled according to the CLP regulation.
GHS02, GHS05, GHS07
Danger
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
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.
Immediately call a POISON CENTER or doctor/physician.

Results of PBT and vPvB assessment PBT: vPvB:

Not applicable. Not applicable.

SECTION 3: Composition/information on ingredients

3.1 Substances CAS# Designation:

626-60-8 3-Chloropyridine Identification number(s):

210-955-7 EC number:

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.
Instantly wash with water and soap and rinse thoroughly.

Seek medical treatment.

After skin contact

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

After eye contact After swallowing

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:

(Contd. on page 2)

(Contd. of page 1)

Printing date 01.07.2013 Revision: 24.05.2010

Trade name 3-Chloropyridine

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

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

Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation

6.2 Environmental precautions:

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.

6.3 Methods and material for containment

and cleaning up:

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.

Prevention of secondary hazards: 6.4 Reference to other sections

See Section 13 for information on personal protection equipment.

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

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:

Protect against electrostatic charges. Fumes can combine with air to form an explosive mixture.

7.2 Conditions for safe storage, including any incompatibilities

SECTION 8: Exposure controls/personal protection

Requirements to be met by storerooms and

containers: Information about storage in one common storage facility:

Further information about storage

conditions:

No special requirements.

Store away from oxidizing agents.

Keep container tightly sealed. Store in cool, dry conditions in well sealed containers. Store in a locked cabinet or with access restricted to technical experts or their assistants. No further relevant information available.

7.3 Specific end use(s)

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.

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

Not required. No data

8.2 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. 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

Breathing equipment: Protection of hands:

Impervious gloves

Material of gloves

Penetration time of glove material Eye protection:

Not determined Tightly sealed safety glasses.

Not determined.

Full face protection Protective work clothing. **Body protection:**

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

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

pH-value:

Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start: Not determined 147-149 °C Not determined

Flash point: 53 °C Inflammability (solid, gaseous) Not determined. Ignition temperature: Decomposition temperature: 610 °C Not determined

Self-inflammability:

Critical values for explosion: Lower: Not determined Upper: Not determined

(Contd. on page 3)

Printing date 01.07.2013 Revision: 24.05.2010

Trade name 3-Chloropyridine

(Contd. of page 2)

Steam pressure:
Density at 20 °C
Relative density
Vapour density
Evaporation rate
Solubility in / Miscibility with
Water at 20 °C: Not determined 1,205 g/cm³ Not determined. Not determined. Not determined.

10 g/l Not determined. Partition coefficient (n-octanol/water): Viscosity: dynamic: Not determined. kinematic: Not determined.

No further relevant information available 9.2 Other information

SECTION 10: Stability and reactivity

10.1 Reactivity
10.2 Chemical stability

Thermal decomposition / conditions to be avoided:
10.3 Possibility of hazardous reactions
10.5 Incompatible materials:

10.6 Hazardous decomposition products:

No decomposition if used and stored according to specifications. No dangerous reactions known Oxidizing agents

No information known. Stable under recommended storage conditions.

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

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity:

Harmful if swallowed. 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:

Skin irritation or corrosion: Eye irritation or corrosion: Sensitization: Germ cell mutagenicity:

Carcinogenicity:

Reproductive toxicity:

Causes severe skin burns. Causes serious eye damage. No sensitizing effect known.

No effects known.

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

No effects known.

No data

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

exposure:

Aspiration hazard:

Other information (about experimental

toxicology): Additional toxicological information:

No effects known.

No effects known. No effects known.

Mutagenic effects have been observed on tests with laboratory animals. To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

SECTION 12: Ecological information

12.1 Toxicity

12.1 Toxicity:
12.2 Persistence and degradability
12.3 Bioaccumulative potential
12.4 Mobility in soil
Additional ecological information:
General notes:

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

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:

vPvB:

12.6 Other adverse effects

Not applicable.

Not applicable. No further relevant information available.

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

UN2924

14.2 UN proper shipping name

2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (3-Chloropyridine) FLAMMABLE LIQUID, CORROSIVE, N.O.S. (3-Chloropyridine)

14.3 Transport hazard class(es)

ADR



IMDG, IATA



3 (FC) Flammable liquids. 3+8 Class

(Contd. on page 4)

(Contd. of page 3)

Printing date 01.07.2013 Revision: 24.05.2010

Trade name 3-Chloropyridine





3 Flammable liquids. Label

Packing group ADR, IMDG, IATA

14.5 Environmental hazards: Not applicable.

14.6 Special precautions for user Kemler Number: Warning: Flammable liquids.

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

Not applicable Transport/Additional information:

ADR

Excepted quantities (EQ): Limited quantities (LQ) Transport category E1 5L 3 Tunnel restriction code Ď/E

UN "Model Regulation": UN2924, FLAMMABLE LIQUID, CORROSIVE, N.O.S. (3-Chloropyridine), 3 (8),

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Australian Inventory of Chemical

Substances Standard for the Uniform Scheduling of

Drugs and Poisons National regulations

Information about limitation of use:

Substance is not listed. Substance is not listed.

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

Water hazard class:
Other regulations, limitations and prohibitive regulations
ELINCS (European List of Notified Chemical Water hazard class 1 (Self-assessment): slightly hazardous for water.

Substances)
Substances of very high concern (SVHC)
according to REACH, Article 57
REACH - Pre-registered substances
15.2 Chemical safety assessment:

Substance is not listed.

Substance is not listed. Substance is listed.

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.

Department issuing data specification sheet:
Abbreviations and acronyms:

Health, Safety and Environmental Department.

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

IATA-DGR: Dangerous Goods by Rail)

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)

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 Hamonized 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)

LC50: Lethal concentration, 50 percent

DE/E

DE/E