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

Printing date 01.07.2013 Revision: 25.04.2005

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

1.1 Product identifier

3-Chloro-4-fluoroiodobenzene, stabilized A11808, L06817 156150-67-3 Trade name

Stock number:

CAS Number:
156150-67-3
1.2 Relevant identified uses of the substance or mixture and uses advised against.

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:

www.alia.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

[! GHS07

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 applica Not applicable Other hazards that do not result in No information known.

classification 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation. Hazard pictograms Signal word

Hazard statements

Precautionary statements

Warning
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H335 May cause respiratory irritation.
H336 May cause respiratory irritation.
H336 May cause respiratory irritation.
H337 May cause respiratory irritation.
H338 May cause respiratory irritation.
H340 Avoid breathing dust/fume/gas/mist/vapours/spray.
H340 Avoid breathing dust/fume/gas

2.3 Other hazards Results of PBT and vPvB assessment

Not applicable. Not applicable. PBT: vPvB:

SECTION 3: Composition/information on ingredients

3.1 Substances CAS# Designation: 156150-67-3 3-Chloro-4-fluoroiodobenzene, stabilized

SECTION 4: First aid measures

4.1 Description of first aid measures

After inhalation

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.

After skin contact

After eve contact

Rinse opened eye for several minutes under running water. Then consult doctor. Seek medical treatment. 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, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

If this product is involved in a fire, the following can be released: Carbon monoxide and carbon dioxide Hydrogen fluoride (HF) Hydrogen chloride (HCI) Hydrogen iodide (HJ) Sulphur oxides (SOx)

.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:

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

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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). Ensure adequate ventilation.

No special measures required.

See Section 7 for information on safe handling

See section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

Prevention of secondary hazards: 6.4 Reference to other sections

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:

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:

No special requirements. Store away from oxidizing agents.

No information known.

Keep container tightly sealed. Store in cool, dry conditions in well sealed containers. No further relevant information available.

7.3 Specific end use(s)

SECTION 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.

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

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:

Protective work clothing.

Not required. No data

Impervious aloves

Material of gloves Penetration time of glove material Not determined Safety glasses Face protection Eye protection:

Body protection:

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information Appearance: Form: Smell:

Odour threshold: pH-value:

Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start:

Flash point:

Inflammability (solid, gaseous) Ignition temperature: Decomposition temperature: Self-inflammability:

Danger of explosion: Critical values for explosion:

Lower: Upper: Steam pressure: Density Relative density

Vapour density Evaporation rate Solubility in / Miscibility with Water: Partition coefficient (n-octanol/water):

Viscosity: dynamic: kinematic

9.2 Other information

94-95 °C (15mm Hg) Not determined

Not determined

Not determined

Not determined

Not determined.

Not determined

Not determined. Not determined Not determined Not determined

Product is not explosive.

Not determined Not determined Not determined Not determined Not determined. Not determined. Not determined.

Not determined Not determined. Not determined

Not determined.

No information known.

No further relevant information available

SECTION 10: Stability and reactivity

10.1 Reactivity 10.2 Chemical stability Thermal decomposition / conditions to be

Stable under recommended storage conditions.

No decomposition if used and stored according to specifications.

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Trade name 3-Chloro-4-fluoroiodobenzene, stabilized

10.3 Possibility of hazardous reactions

10.5 Incompatible materials:

10.6 Hazardous decomposition products:

No dangerous reactions known

Oxidizing agents
Carbon monoxide and carbon dioxide
Hydrogen fluoride

Hydrogen chloride (HCI) Hydrogen iodide (HI) Sulphur oxides (SOx)

No effects known.

No effects known. No effects known.

Causes skin irritation.

No data

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity: LD/LC50 values that are relevant for

classification: Skin irritation or corrosion: Eye irritation or corrosion: Sensitization:

Causes serious eye irritation. 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.

Germ cell mutagenicity: Carcinogenicity:

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

exposure:

Aspiration hazard:

Additional toxicological information:

May cause respiratory irritation. No effects known.

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 Aquatic toxicity:

Aduatic 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 .2 UN proper shipping name ADR, IMDG, IATA

None None

None

14.3 Transport hazard class(es)

ADR. IMDG. IATA

Class

Packing group ADR, IMDG, IATA

None

Not applicable 14.5 Environmental hazards: 14.6 Special precautions for user Not applicable

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

Code Not applicable

Transport/Additional information: Not dangerous according to the above specifications.

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 Substance is not listed.

Substance is not listed.

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

Other regulations, limitations and prohibitive regulations ELINCS (European List of Notified Chemical

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.

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Trade name 3-Chloro-4-fluoroiodobenzene, stabilized

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

Abbreviations and acronyms:

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

IMDE: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Hamonized System of Classification and Labelling of Chemicals

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

LC50: Lethal concentration, 50 percent

DE/E DE/E