

# Safety data sheet

according to 1907/2006/EC, Article 31

Revision: 30.11.2006

Printing date 02.07.2013

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

### 1.1 Product identifier

Trade name **4-Bromo-2-methylbenzonitrile**

Stock number: L10526

CAS Number: 67832-11-5

### 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



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H312 Harmful in contact with skin.

Acute Tox. 4 H332 Harmful if inhaled.

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

Xn; Harmful

R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.

Xi; Irritant

R36/37/38: Irritating to eyes, respiratory system and skin.

### Information concerning particular hazards for human and environment:

Not applicable

### 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

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

GHS07

Warning

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H332 Harmful if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

#### Precautionary statements

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.

### 2.3 Other hazards

Results of PBT and vPvB assessment

PBT:

Not applicable.

vPvB:

Not applicable.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

CAS# Designation: 67832-11-5 4-Bromo-2-methylbenzonitrile

## 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.

After skin contact

Seek immediate medical advice.

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.

### 4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

### 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing agents

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

### 5.2 Special hazards arising from the substance or mixture

If this product is involved in a fire, the following can be released:

Carbon monoxide and carbon dioxide

Nitrogen oxides (NOx)

Hydrogen cyanide (HCN)

Hydrogen bromide (HBr)

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## 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:

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:

Dispose of contaminated material as waste according to item 13.

### Prevention of secondary hazards:

Ensure adequate ventilation.  
No special measures required.

### 6.4 Reference to other sections

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

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:

No information known.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Storage Requirements to be met by storerooms and containers:

No special requirements.

#### Information about storage in one common storage facility:

Store away from oxidizing agents.

#### Further information about storage conditions:

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:

Not required.

#### Additional information:

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.

#### Breathing equipment:

#### Protection of hands:

Impervious gloves

Not determined

#### Material of gloves

#### Penetration time of glove material

Safety glasses

#### Eye protection:

Face protection

#### Body protection:

Protective work clothing.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### General Information

#### Appearance:

##### Form:

Powder

##### Colour:

Cream coloured

##### Smell:

Not determined

##### Odour threshold:

Not determined.

#### pH-value:

Not applicable.

#### Change in condition

##### Melting point/Melting range:

63-64 °C

##### Boiling point/Boiling range:

Not determined

##### Sublimation temperature / start:

Not determined

#### Flash point:

Not applicable

#### Inflammability (solid, gaseous)

Not determined.

#### Ignition temperature:

Not determined

#### Decomposition temperature:

Not determined

#### Self-inflammability:

Not determined.

#### Danger of explosion:

Product is not explosive.

#### Critical values for explosion:

##### Lower:

Not determined

##### Upper:

Not determined

#### Steam pressure:

Not applicable.

#### Density

Not determined

#### Relative density

Not determined.

#### Vapour density

Not applicable.

#### Evaporation rate

Not applicable.

#### Solubility in / Miscibility with

##### Water:

Insoluble

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Partition coefficient (n-octanol/water): Not determined.  
 Viscosity:  
   dynamic: Not applicable.  
   kinematic: Not applicable.  
 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  
 10.6 Hazardous decomposition products: Carbon monoxide and carbon dioxide  
   Nitrogen oxides (NO<sub>x</sub>)  
   Hydrogen cyanide (prussic acid)  
   Hydrogen bromide

**SECTION 11: Toxicological information**

11.1 Information on toxicological effects  
 Acute toxicity: Harmful if inhaled.  
   Harmful in contact with skin.  
   Harmful if swallowed.  
   Danger by skin resorption.  
 LD/LC50 values that are relevant for classification: No data  
 Skin irritation or corrosion: Causes skin irritation.  
 Eye irritation or corrosion: Causes serious eye irritation.  
 Sensitization: No sensitizing effect known.  
 Germ cell mutagenicity: No effects known.  
 Carcinogenicity: No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.  
 Reproductive toxicity: No effects known.  
 Specific target organ system toxicity - repeated exposure: No effects known.  
 Specific target organ system toxicity - single exposure: May cause respiratory irritation.  
 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.



**SECTION 12: Ecological information**

12.1 Toxicity No further relevant information available.  
 Aquatic 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.

**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 UN3439  
 ADR, IMDG, IATA  
 14.2 UN proper shipping name 3439 NITRILES, TOXIC, SOLID, N.O.S. (4-Bromo-2-methylbenzonitrile)  
 ADR NITRILES, TOXIC, SOLID, N.O.S. (4-Bromo-2-methylbenzonitrile)  
 IMDG, IATA  
 14.3 Transport hazard class(es)  
 ADR  
  
 Class 6.1 (T2) Toxic substances.  
 Label 6.1  
 IMDG, IATA  
  
 Class 6.1 Toxic substances.  
 Label 6.1  
 Packing group III  
 ADR, IMDG, IATA  
 14.5 Environmental hazards: Not applicable.  
 14.6 Special precautions for user Warning: Toxic substances.

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Kemler Number: 60

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): E1  
 Limited quantities (LQ) 5 kg  
 Transport category 2  
 Tunnel restriction code E

UN "Model Regulation": UN3439, NITRILES, TOXIC, SOLID, N.O.S. (4-Bromo-2-methylbenzonitrile), 6.1, III

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

Australian Inventory of Chemical

Substances

Substance is not listed.

Standard for the Uniform Scheduling of

Drugs and Poisons

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)

Substance is not listed.

Substances of very high concern (SVHC)

according to REACH, Article 57

REACH - Pre-registered substances

Substance is not listed.

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.

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)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

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

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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