

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 02.07.2013

Revision: 20.04.2009

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

**1.1 Product identifier**  
 Trade name **4-(1-Piperidinylmethyl)benzeneboronic acid pinacol ester**  
 Stock number: H51114  
**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  
 Product safety Tel + +049 (0) 7275 988687-0  
**Informing department:** Carechem 24: +44 (0) 1235 239 670 (Multi-language emergency number)  
**1.4 Emergency telephone 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 The substance is not classified as hazardous to health or the environment according to the CLP regulation.

**Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Not applicable

**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 Not applicable

**Hazard pictograms** Not applicable

**Signal word** Not applicable

**Hazard statements** Not applicable

**2.3 Other hazards**  
 Results of PBT and vPvB assessment Not applicable.  
 PBT: Not applicable.  
 vPvB: Not applicable.

**SECTION 3: Composition/information on ingredients**

**3.1 Substances**  
 CAS# Designation: 4-(1-Piperidinylmethyl)benzeneboronic acid pinacol ester

**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.  
**After eye contact** Seek immediate medical advice.  
**After swallowing** Rinse opened eye for several minutes under running water. Then consult doctor.  
 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)  
 Boron oxide  
 Hydrogen cyanide (HCN)

**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:** Collect mechanically.

**Prevention of secondary hazards:** 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.

**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.

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Information about storage in one common storage facility:  
Further information about storage conditions:

Store away from oxidizing agents.  
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.

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

Safety glasses

Protective work clothing.

Breathing equipment:

Protection of hands:

Material of gloves

Penetration time of glove material

Eye protection:

Body protection:

**SECTION 9: Physical and chemical properties**

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Crystalline

Form:

Not determined

Smell:

Not determined.

Odour threshold:

Not applicable.

pH-value:

Not determined

Change in condition

Not determined

Melting point/Melting range:

142 °C (0.5 mmHg)

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:

Not determined

Lower:

Not determined

Upper:

Not applicable.

Steam pressure:

Not determined

Density

Not determined.

Relative density

Not applicable.

Vapour density

Not applicable.

Evaporation rate

Not applicable.

Solubility in / Miscibility with

Insoluble

Water:

Not determined.

Partition coefficient (n-octanol/water):

Not applicable.

Viscosity:

Not applicable.

dynamic:

Not applicable.

kinematic:

No further relevant information available.

9.2 Other information

**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 (NOx)

Boron oxide

Hydrogen cyanide (prussic acid)

**SECTION 11: Toxicological information**

11.1 Information on toxicological effects

No effects known.

Acute toxicity:

No data

LD/LC50 values that are relevant for classification:

May cause irritation

Skin irritation or corrosion:

May cause irritation

Eye irritation or corrosion:

No sensitizing effect known.

Sensitization:

No effects known.

Germ cell mutagenicity:

EPA-I: Data are inadequate for an assessment of human carcinogenic potential.

Carcinogenicity:

No effects known.

Reproductive toxicity:

No effects known.

Specific target organ system toxicity - repeated exposure:

No effects known.

Specific target organ system toxicity - single exposure:

No effects known.

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DE/E

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|                                              |                                                                                                   |                    |
|----------------------------------------------|---------------------------------------------------------------------------------------------------|--------------------|
| <b>Aspiration hazard:</b>                    | No effects known.                                                                                 | (Contd. of page 2) |
| <b>Additional toxicological information:</b> | To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. |                    |

**SECTION 12: Ecological information**

|                                                |                                                                                                                                                                            |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>12.1 Toxicity</b>                           | No further relevant information available.                                                                                                                                 |
| <b>Aquatic toxicity:</b>                       | No further relevant information available.                                                                                                                                 |
| <b>12.2 Persistence and degradability</b>      | No further relevant information available.                                                                                                                                 |
| <b>12.3 Bioaccumulative potential</b>          | No further relevant information available.                                                                                                                                 |
| <b>12.4 Mobility in soil</b>                   | No further relevant information available.                                                                                                                                 |
| <b>Additional ecological information:</b>      |                                                                                                                                                                            |
| <b>General notes:</b>                          | Do not allow material to be released to the environment without proper governmental permits.<br>Generally not hazardous for water.<br>Avoid transfer into the environment. |
| <b>12.5 Results of PBT and vPvB assessment</b> |                                                                                                                                                                            |
| <b>PBT:</b>                                    | Not applicable.                                                                                                                                                            |
| <b>vPvB:</b>                                   | Not applicable.                                                                                                                                                            |
| <b>12.6 Other adverse effects</b>              | No further relevant information available.                                                                                                                                 |

**SECTION 13: Disposal considerations**

|                                     |                                                                                                                                                                                       |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>13.1 Waste treatment methods</b> |                                                                                                                                                                                       |
| <b>Recommendation</b>               | Hand over to disposers of hazardous waste.<br>Must be specially treated under adherence to official regulations.<br>Consult state, local or national regulations for proper disposal. |
| <b>Uncleaned packagings:</b>        |                                                                                                                                                                                       |
| <b>Recommendation:</b>              | Disposal must be made according to official regulations.                                                                                                                              |

**SECTION 14: Transport information**

|                                                                                |                                                      |
|--------------------------------------------------------------------------------|------------------------------------------------------|
| <b>UN-Number</b>                                                               |                                                      |
| <b>ADR, IMDG, IATA</b>                                                         | None                                                 |
| <b>14.2 UN proper shipping name</b>                                            |                                                      |
| <b>ADR, IMDG, IATA</b>                                                         | None                                                 |
| <b>14.3 Transport hazard class(es)</b>                                         |                                                      |
| <b>ADR, IMDG, IATA</b>                                                         |                                                      |
| <b>Class</b>                                                                   | None                                                 |
| <b>Packing group</b>                                                           |                                                      |
| <b>ADR, IMDG, IATA</b>                                                         | None                                                 |
| <b>14.5 Environmental hazards:</b>                                             | Not applicable.                                      |
| <b>14.6 Special precautions for user</b>                                       | Not applicable.                                      |
| <b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC</b> |                                                      |
| <b>Code</b>                                                                    | Not applicable.                                      |
| <b>Transport/Additional information:</b>                                       | Not dangerous according to the above specifications. |

**SECTION 15: Regulatory information**

|                                                                                                            |                                                        |
|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| <b>15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture</b> |                                                        |
| <b>Australian Inventory of Chemical Substances</b>                                                         | Substance is not listed.                               |
| <b>Standard for the Uniform Scheduling of Drugs and Poisons</b>                                            | Substance is not listed.                               |
| <b>National regulations</b>                                                                                |                                                        |
| <b>Information about limitation of use:</b>                                                                | For use only by technically qualified individuals.     |
| <b>Water hazard class:</b>                                                                                 | Generally not hazardous for water.                     |
| <b>Other regulations, limitations and prohibitive regulations</b>                                          |                                                        |
| <b>ELINCS (European List of Notified Chemical Substances)</b>                                              | Substance is not listed.                               |
| <b>Substances of very high concern (SVHC) according to REACH, Article 57</b>                               | Substance is not listed.                               |
| <b>REACH - Pre-registered substances</b>                                                                   | Substance is not listed.                               |
| <b>15.2 Chemical safety assessment:</b>                                                                    | 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.

|                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Department issuing data specification sheet:</b> | Health, Safety and Environmental Department.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Abbreviations and acronyms:</b>                  | RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)<br>IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)<br>ICAO: International Civil Aviation Organization<br>ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)<br>ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)<br>IMDG: International Maritime Code for Dangerous Goods<br>IATA: International Air Transport Association<br>GHS: Globally Harmonized System of Classification and Labelling of Chemicals<br>CAS: Chemical Abstracts Service (division of the American Chemical Society)<br>LC50: Lethal concentration, 50 percent<br>LD50: Lethal dose, 50 percent |