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

Printing date 08.06.2011 Revision: 07.06.2011

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

Product identifier

Trade name 2-(Boc-amino)pyridine-3-boronic acid pinacol ester

Stock number: H50094 1072944-99-0 CAS 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 Derizstrasse 3 D-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 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 Emergency telephone number:

#### 2 Hazards identification

Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008

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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.

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.
H319 Cause respiratory 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.
Dispose of contents/container in accordance with local/regional/national/international

Other hazards Results of PBT and vPvB assessment

PBT: vPvB: Not applicable. Not applicable.

### 3 Composition/information on ingredients

Chemical characterization: Substances (CAS#) Designation:

(1072944-99-0) 2-(Boc-amino)pyridine-3-boronic acid pinacol

4 First aid measures

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.

After skin contact

Instantly wash with water and soap and rinse thoroughly.

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

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)

Boron oxide

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:

Ensure adequate ventilation. Reference to other sections

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

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See Section 13 for information on disposal

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7 Handling and storage

Handling 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:

Keep ignition sources away - Do not smoke.

Conditions for safe storage, including any incompatibilities

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

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.

Use breathing protection with high concentrations.

Breathing equipment: Protection of hands: Material of gloves

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

Penetration time of glove material

Eye protection:

Safety glasses Face protection Protective work clothing.

Powder

**Body protection:** 

9 Physical and chemical properties

Information on basic physical and chemical properties General Information

Appearance: Form: Colour: Smell:

Cream coloured Not determined Odour threshold: Not determined

pH-value: Not applicable.

Flash point:

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

Not determined Not determined Not determined 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 Vapour density Not determined. Not applicable. **Evaporation rate** Not applicable.

Segregation coefficient (n-octanol/water):

Viscosity: dynamic: Not applicable.

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

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

Not determined.

Oxidizing agents
Carbon monoxide and carbon dioxide Nitrogen oxides (NOx)

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Boron oxide

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11 Toxicological information

Information on toxicological effects

Acute toxicity:
Primary irritant effect:
on the skin:

on the eye: Sensitization:

Additional toxicological information:

Irritant for skin and mucous membranes.

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

No further relevant information available.

No further relevant information available.

Irritant effect.

Not applicable.

No sensitizing effect known.

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

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

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

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

13 Disposal considerations

Not applicable.
No further relevant information available.

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.

14 Transport information

Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)
ADR/RID-GGVS/E Class:
None

Maritime transport IMDG/GGVSea: IMDG/GGVSea Class:

None 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

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

Department issuing data specification sheet:
Contact:

Abbreviations and acronyms:

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

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

NIDG: 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

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GHS: Globally Harmonized System of Classification and Labelling of Chemicals CAS: Chemical Abstracts Service (division of the American Chemical Society)