

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Description:

4-(4-Amino-butyl)-piperazine-1-carboxylic acid tert-butyl ester

Cat No:

ACI-01152

CAS No:

745048-07-1**Relevant identified uses of the substance or mixture and uses advised against****Recommended Use:** Laboratory Chemicals**Uses advised against:** No information available**Details of the supplier of the safety data sheet****Company**

Advanced Chemical Intermediates Limited

The Old Dairy

Tresplatt

Davidstow

Cornwall

PL32 9YD

Tel: +44 (0) 1840 261451

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Acute oral toxicity	Category 4
Acute dermal toxicity	Category 4
Acute Inhalation toxicity – Dusts and mists	Category 4
Skin corrosion/irritation	Category 2
Serious Eye Damage/Eye irritation	Category 2A
Specific target organ systemic toxicity (single exposure)	Category 3

Label Elements**Signal Word****Warning****Hazard Statements**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H302+H312+H332: Harmful if swallowed, in contact with skin or if inhaled.

Precautionary Statements – EU (S28, 1272/2008)

P261 Avoid breathing dust/fumes/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302 + P352 IF ON SKIN: Wash with plenty of water.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P301+312 IF SWALLOWED: Call a POISON CENTER/ doctor.

Other Hazards

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component

4-(4-Amino-butyl)-piperazine-1-carboxylic acid tert-butyl ester

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EC No:

4. FIRST AID MEASURES

Description of first aid measures

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes, Obtain medical attention

Skin Contact wash off immediately with soap and plenty of water removing all contaminated clothes and shoes, Obtain medical attention

Ingestion Clean mouth with water, Obtain medical attention

Inhalation Remove from exposure, lie down. Move to fresh air if breathing is difficult, give oxygen if not breathing, give artificial respiration, Obtain medical attention

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media

Water spray Carbon dioxide (CO2) Dry chemical foam

Extinguishing media which must not be used for safety reasons

No information available

Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapours

Advice for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Environmental precautions

Prevent further leakage or spillage if safe to do so

Methods and material for containment and cleaning up

Sweep up or spillage and collect in suitable container for disposal. Use suitable absorbent if required. Do not let this chemical enter the environment

7. HANDLING AND STORAGE

Precautions for Safe Handling

Avoid contact with skin and eyes. Do not breath dust. Do not breath vapours or spray mist. Do not ingest

Conditions for Safe Storage, including and incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Exposure limits Not applicable

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available

Exposure Controls

Engineering Measures Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to workstation location.

Personal Protective Equipment

- 1. Eye protection** Goggles
- 2. Hand protection** Protective gloves
- 3. Skin and body protection** Wear appropriate protective gloves and clothing to prevent skin exposure
- 4. Respiratory protection** Follow the OSHA respirator regulations found in 29 CFR 1910.134 OR European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures

Handle in accordance with good industrial hygiene practice

Environmental Exposure Controls

No information available

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid/LMS
Appearance	Yellow
Boiling Point/Range	
Melting Point/Range	
Flash Point	
Molecular Formula	C13H27N3O2
Molecular Weight	257.38

10. STABILITY AND REACTIVITY

Reactivity

Chemical Stability

Stable under normal conditions

Possibility of Hazardous Reactions

Hazardous Polymerization No information available

Hazardous Reactions No information available

Conditions to Avoid

Incompatible products. Heat.

Incompatible Materials

Acids, bases, strong oxidizing agents, strong reducing agents,

Hazardous Decomposition Products

In combustion emits toxic fumes.

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Acute Toxicity

Product Information No acute toxicity information available for product

Component Information

Chronic Toxicity

Carcinogenicity There are no known carcinogenic chemicals in product

Sensitization No information available

Mutagenic Effects No information available

Reproductive Effects No information available

Developmental Effects No information available

Target Organs No information available

Other Adverse Effects The toxicological properties have not been fully investigated

Endocrine Disruptor Information None known

12. ECOLOGICAL INFORMATION

Toxicity

Eco-toxicity Effects Do not empty into drains

Persistence and Degradability No information available

Bio-accumulative Potential No information available

Mobility in Soil No information available

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Waste from Residues/Unused Products Dispose of in accordance with local regulations

Contaminated Packaging Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

IMDG/IMO

Not regulated

ADR

Not regulated

IATA

Not regulated

15. REGULATORY INFORMATION

Safety, health and environmental regulations specific for the substance or the mixture

Chemical Safety Assessment

A Chemical safety assessment has not been carried out.

International Inventories

16. OTHER INFORMATION

Revision Date 15-Jul-2020

Version Number 1.2

Revision Summary Not Applicable

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

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