

Material Safety Data Sheet

Section 1 - Chemical Product and Company Identification

MSDS Name: (1S,4S)-2-Aza-5-oxabicyclo[2.2.1]heptane hydrochloride
Synonyms:
Company Identification: Annker Organics Co. Ltd.
Rm501, No.178 Lane 4, Wuluo Road Wuchang District
Wuhan 430064, Hubei China
Telephone Number: +86-27-88041443
Fax Number: +86-27-51829379

Section 2 - Product Information

Catalog Number: H112877
CAS Number: 31560-06-2
MDL Number: MFCD01569249
EC Number: Not available
Molecular Formula: $C_5H_{10}ClNO$
Molecular Weight: 135.59
Purity: 97%

Section 3 - Physical and Chemical Properties

Physical state: Crystals
Color: Off-white
Odor: Not available
Freezing/Melting Point: 154-156 deg C
Boiling Point: Not available
Flash Point: Not available
Refractive Index (n_D^{20}): Not available
Density: Not available
Decomposition Temperature: Not available
Solubility: Soluble in methanol

Section 4 - Hazards Identification

Classification of the substance or mixture

According to Regulation (EC) No1272/2008
Skin irritation (Category 2)
Eye irritation (Category 2)
Specific target organ toxicity - single exposure (Category 3)
According to European Directive 67/548/EEC as amended.

Irritating to eyes, respiratory system and skin.

Label elements

Pictogram



Signal word

Warning

Hazard statement(s)

- | | |
|------|-----------------------------------|
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H335 | May cause respiratory irritation. |

Precautionary statement(s)

- | | |
|--------------------|--|
| 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. |

Hazard symbol(s)

- | | |
|----|----------|
| Xi | Irritant |
|----|----------|

R-phrases(s)

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

S-phrases(s)

- | | |
|-----|---|
| S26 | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. |
| S36 | Wear suitable protective clothing. |

Section 5 - First Aid Measures

- Eye:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
- Skin:** Get medical aid. Flush skin with plenty of water and soap for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops and persists.
- Ingestion:** Get medical aid immediately. Wash mouth out with water.
- Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Section 6 - Stability and Reactivity

- | | |
|--|--|
| Chemical Stability: | Stable under normal temperatures and pressures. |
| Materials to avoid: | Strong oxidizing agents. |
| Conditions to Avoid: | Incompatible materials. |
| Hazardous Decomposition Products: | Carbon monoxide, carbon dioxide, nitrogen oxides, hydrochloride. |
| Hazardous Polymerization: | Has not been reported. |

Section 7 - Handling and Storage

Handling: Avoid breathing dust, vapor, mist, or gas. Keep container tightly closed. Avoid contact with skin and eyes. Wash thoroughly after handling. Mechanical exhaust required.

Storage: Store in a cool, dry well ventilated place away from sources of heat and incompatible substances. Keep container tightly closed when not in use.

Section 8 - Personal Protection

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: 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.

Section 9 - Fire and Explosion Hazard Data

General Information: As in any fire, wear a self-contained breathing apparatus, MSHA/NIOSH (approved or equivalent) and protective clothing to prevent contact with skin and eyes.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Section 10 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container.

Section 11 - Toxicological Information

RTECS#: CAS#31560-06-2: Not available

LD50/LC50: RTECS: Not available.

Carcinogenicity: (1S,4S)-2-Aza-5-oxabicyclo[2.2.1]heptane hydrochloride - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Section 12 - Environmental information

Not available

Section 13 - Disposal Consideration

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations.

Section 14 - Transport Information

IATA: This substance is considered to be not restricted for transportation.

IMO: This substance is considered to be not restricted for transportation.

RID/ADR: This substance is considered to be not restricted for transportation.

Section 15 - Regulatory Information

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

European/International Regulations

European Labeling in Accordance with EC Directives

WGK (Water Danger/Protection)

CAS#31560-06-2: 2

Canada

CAS#31560-06-2: Not available

US Federal

TSCA

CAS#31560-06-2 is not listed on the TSCA Inventory. It is for research and development use only.

Section 16 - Additional Information

MSDS Creation Date: May 20, 2011

Update: April 1, 2013

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