

## Material Safety Data Sheet

### 1. Identification of the substance

Product Name: 4-cyano-2,2-dimethyl-3-oxo-1-pyrrolidinecarboxylic acid tert-butyl ester  
CAS Number: 718632-42-9  
Catalog number: A837342  
Supplier: Amadis Chemical Co., Ltd.  
Swatts Cosine.No.166.Xiangmao Road.310015.  
Hangzhou,Zhejiang,P.R.China  
Tel:0086-571-89925085 Fax:0086-571-89925065

### 2. Composition/information on ingredients.

Ingredient: 4-cyano-2,2-dimethyl-3-oxo-1-pyrrolidinecarboxylic acid tert-butyl ester  
Formula: C<sub>12</sub>H<sub>18</sub>N<sub>2</sub>O<sub>3</sub>  
Molweight: 238.28

### 3. Hazards identification

3.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, oral(Category 4) H302

Skin corrosion/irritation(Category 2) H315

Serious eye damage/eye irritation(Category 2A ) H319

Specific target organ toxicity, single exposure(Category 3) H335

No Resource File

3.2 GHS Label elements, including precautionary statements



Pictogram

Signal word

Warning

Hazard statement(s)

H302

Harmful if swallowed

H315

Causes skin irritation

H319

Causes serious eye irritation

H335

May cause respiratory irritation

P261

Avoid breathing dust/fume/gas/mistapours/spray.

P264

Wash hands thoroughly after handling

P270

Do not eat, drink or smoke when using this product.

P271

Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection/faceprotection.  
 P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
 P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.Remove contact lenses, if present and easy to do. Continue rinsing.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.  
 P330 Rinse mouth.  
 P332+P313 If skin irritation occurs: Get medical advice/attention.  
 P337+P313 If eye irritation persists: Get medical advice/attention.  
 P362 Take off contaminated clothing and wash before reuse.  
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
 P405 Store locked up.  
 P501 Dispose of contents/container to in accordance with local

3.3 Associated risk phrases according to european directive 67/548/EEC



Hazard symbol(s)

R-phrases)

R22 Harmful if swallowed.  
 R36 Irritating to eyes.  
 R37 Irritating to respiratory system.  
 R38 Irritating to skin.

S-phrase(s)

S1 Keep locked up.  
 S20/21 When using do not eat, drink or smoke.  
 S23 Do not breathe gas/fumesapour/spray.  
 S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
 S27 Take off immediately all contaminated clothing.  
 S28 After contact with skin, wash immediately with plenty of water.  
 S28B After contact with skin, wash immediately with plenty of water and soap.  
 S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.  
 S44 If you feel unwell, seek medical advice (show the label where possible).  
 S46 If swallowed, seek medical advice immediately and show this container or label.  
 S51 Use only in well-ventilated areas.  
 S61 Avoid release to the environment. Refer to special

#### 4. First aid measures

Skin contact: Immediately wash skin with copious amounts of water for at least 15 minutes while removing contaminated clothing and shoes. If irritation persists, seek medical attention.

Eye contact: Immediately wash skin with copious amounts of water for at least 15 minutes. Assure adequate flushing of the eyes by separating the eyelids with fingers. If irritation persists, seek medical attention.

Inhalation: Remove to fresh air. In severe cases or if symptoms persist, seek medical attention.

Ingestion: Wash out mouth with copious amounts of water for at least 15 minutes. Seek medical attention.

#### 5. Fire fighting measures

In the event of a fire involving this material, alone or in combination with other materials, use drypowder or carbon dioxide extinguishers. Protective clothing and self-contained breathing apparatus should be worn.

#### 6. Accidental release measures

Personal precautions:Wear suitable personal protective equipmentwhich performs satisfactorily andmeets

local/state/national standards.

Respiratory precaution: Wear approved mask/respirator

Hand precaution: Wear suitable gloves/gauntlets

Skin protection: Wear suitable protective clothing

Eye protection: Wear suitable eye protection

Methods for cleaning up: Mix with sand or similar inert absorbentmaterial, sweep up and keep in a tightly closed container for disposal. See section 12.

Environmental precautions: Do not allow material to enter drains or water courses.

#### 7. Handling and storage

Handling: This product should be handled only by, or under the close supervision of, those properly qualified in the handling and use of potentially hazardous chemicals, who should take into account the physical, health and chemical hazard data given on this sheet.

Storage: Store in cool, well ventilated area. Keep container tightly closed.

#### 8. Exposure Controls / PPE

Engineering Controls: Use only in a chemical fume hood.

Personal protective equipment: Wear chemical-resistant gloves, safety goggles.

General hygiene measures: Wash thoroughly after handling. Wash contaminated clothing before reuse.

#### 9. Physical and chemical properties

Appearance : White powder

Odor: Not available.

Boiling point: Not available  
Melting point: Not available.  
Flash point: Not available.  
Density: Not available

## 10. Stability and reactivity

Reactivity: no data  
Chemical stability: no data  
Possibility of hazardous reactions: no data  
Conditions to avoid: IStrong oxidizing agents  
Incompatible materials: Hazardous decomposition products: Other decomposition products - no data available

## 11. Toxicological information

Acute Toxicity: No date  
Skin corrosion/irritation: Irritant for skin and mucous membranes  
Serious eye Damage/irritation: Irritant effect  
Respiratory or skin sensitization: No date  
Germ Cell mutagenicity: No date  
Carcinogenicity: No date  
Reproductive toxicity: No date  
STOT-single exposure: No date  
STOT-repeated exposure: No date  
Aspiration hazard: No date

## 12. Ecological information

Toxicity: No data  
Persistence and degradability: No data  
Bio accumulative potential: No data  
Mobility in soil: No data  
Results of PBT and vPvB assessment: No data  
Other adverse effects: No data

## 13. Disposal consideration

Arrange disposal as special waste, by licensed disposal company, in consultation with local waste disposal authority, in accordance with national and regional regulations.

**14. Transportation information**

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

**15. Regulatory information**

Safety, health and environmental and national regulations:

Product is not subject to any additional regulations or provisions

Safety Assessment

No Chemical Safety Assessment

**16. Other information**

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this inform