

Material Safety Data Sheet

Section 1 - Chemical Product and Company Identification

MSDS Name: (R)-4-Hydroxy-2-pyrrolidone
Synonyms: (R)- β -Hydroxy- γ -butyrolactam
Company Identification: PI Chemicals Ltd.
Building B, 633 E Shan Road, Pudong New Area
Shanghai 200127, China
Telephone Number: 86-21-58953700
Fax Number: 86-21-58953701

Section 2 - Product Information

Catalog Number: PI-15469
CAS Number: 22677-21-0
MDL Number: MFCD00273364
EC Number: Not available
Purity: 97%

Section 3 - Physical and Chemical Properties

Physical state: Solid
Color: Off-white
Odor: Not determined
Molecular Formula: C₄H₇NO₂
Molecular Weight: 101.1
Freezing/Melting Point: 156-159 °C(lit.)
Boiling Point: Not determined
Flash Point: Not determined
Autoignition Temperature: Not determined
Refractive Index (n_D20): Not determined
Density: Not determined
Decomposition Temperature: Not determined
Solubility: Not determined

Section 4 - Hazards Identification

Eye: Causes serious eye irritation.
Skin: Causes skin irritation. Harmful if absorbed through the skin.
Ingestion: May cause irritation of the digestive tract. Toxic if swallowed.

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.

Section 5 - First Aid Measures

Eye: Flush eyes with plenty of water for several minutes. Get medical aid.

Skin: Flush skin with plenty of water and soap for several and rinse thoroughly.
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 required, give artificial respiration. Get medical aid if symptoms persist.

Section 6 - Stability and Reactivity

Chemical Stability: Stable under recommended temperatures and pressures.

Materials to avoid: Strong acids, Strong bases, Strong oxidizing agents.

Conditions to Avoid: No data available.

Hazardous Decomposition Products: Carbon oxides, nitrogen oxides.

Hazardous Polymerization: Has not been reported.

Section 7 - Handling and Storage

Handling: Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Storage: Store in cool, dry conditions in well sealed container. Keep container tightly sealed.

Section 8 - Personal Protection

Eyes: Wear appropriate protective eyeglasses.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Use an approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 – Fire Fighting Measures

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: Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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# 22677-21-0: Not available.

LD50/LC50: RTECS: Not available.

Carcinogenicity: (R)-4-Hydroxy-2-pyrrolidone - Not listed as a carcinogen by ACGIH, IARC, NTP, OSHA or EPA..

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: Not dangerous goods.

IMO: Not dangerous goods.

RID/ADR: Not dangerous goods.

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Xi

Indication of Danger: Irritant

H303 May be harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

Risk Phrases:

R 36/37/38: Irritating to eyes, respiratory system and skin.

Safety Phrases:

S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

WGK: 3

US Federal

TSCA

CAS# 22677-21-0 is not listed on the TSCA Inventory. It is for research and development use only.

Section 16 - Additional Information

MSDS Creation Date: Dec 1, 2010

Update: Feb 29, 2012

The above information is believed to be accurate and represents the best knowledge available to us currently. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall PI Chemicals, be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, even if PI Chemicals has been advised of the possibility of such damages.