Section 1 - Chemical Product and Company Identification

MSDS Name: trans-4-Hydroxy-L-proline, 99+%
Catalog Numbers: AC121780000, AC121780100, AC121780250, AC121781000
Synonyms: (2S, 4R)-(−)-4-Hydroxy-2-pyrrolidinecarboxylic acid

Company Identification: Acros Organics BVBA
Janssen Pharmaceuticalaan 3a
2440 Geel, Belgium

Company Identification: (USA)
Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

For information in the US, call: 800-ACROS-01
For information in Europe, call: +32 14 57 52 11
Emergency Number, Europe: +32 14 57 52 99
Emergency Number US: 201-796-7100
CHEMTREC Phone Number, US: 800-424-9300
CHEMTREC Phone Number, Europe: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#: 51-35-4
Chemical Name: trans-4-Hydroxy-L-proline
%: 99+%
EINECS#: 200-091-9

Hazard Symbols: None listed
Risk Phrases: None listed

Section 3 - Hazards Identification

EMERGENCY OVERVIEW
The toxicological properties of this material have not been fully investigated. Target Organs: None known.

Potential Health Effects
Eye: May cause eye irritation.
Skin: May cause skin irritation.
Ingestion: The toxicological properties of this substance have not been fully investigated.
Inhalation: May cause respiratory tract irritation.
Chronic:

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids.
Skin: Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
Ingestion: Get medical aid. Wash mouth out with water.
Inhalation: Remove from exposure and move to fresh air immediately.
Notes to Physician:

Section 5 - Fire Fighting Measures
As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH
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 7 - Handling and Storage
Handling: Avoid breathing dust, mist, or vapor. Avoid contact with skin and eyes.
Storage: Store in a cool, dry place. Store in a tightly closed container.

Section 8 - Exposure Controls, Personal Protection

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>trans-4-Hydroxy-L-proline</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs: trans-4-Hydroxy-L-proline: None listed

Engineering Controls:
Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Exposure Limits

Personal Protective Equipment

Eyes: Wear chemical splash goggles.
Skin: Wear appropriate protective gloves to prevent skin exposure.
Clothing: Wear a chemical apron.
Respirators: A NIOSH/MSHA approved air purifying dust or mist respirator or European Standard EN 149.

Section 9 - Physical and Chemical Properties

Physical State: Solid
Color: white
Odor: Practically odorless.
\( \text{pH} \): Not available

Vapor Pressure: Not available
Vapor Density: Not available
Evaporation Rate: Not available
Viscosity: Not available
Boiling Point: Not available

Freezing/Melting Point: 274 - 275 \( \text{deg C} \)

Decomposition Temperature:

Solubility in water: 357.8 G/L WATER (20° C)

Specific Gravity/Density:
Molecular Formula: C5H9NO3
Molecular Weight: 131.13

Section 10 - Stability and Reactivity
Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Incompatible materials.
Incompatibilities with Other Materials: Not available
Hazardous Decomposition Products: Nitrogen oxides, carbon monoxide, carbon dioxide.
Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 51-35-4: TW3586500
LD50/LC50: RTECS: Not available.
Carcinogenicity: trans-4-Hydroxy-L-proline - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Ecotoxicity: Not available

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT
Shipping Name: Not regulated as a hazardous material
Hazard Class:
UN Number:
Packing Group:
Canada TDG
Shipping Name: Not available
Hazard Class:
UN Number:
Packing Group:

Section 15 - Regulatory Information

European/International Regulations
European Labeling in Accordance with EC Directives
   Hazard Symbols: Not available
   Risk Phrases:
   Safety Phrases:
      S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)
   CAS# 51-35-4: 0

Canada
   CAS# 51-35-4 is listed on Canada's DSL List
   Canadian WHMIS Classifications: Not available
   This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.
   CAS# 51-35-4 is not listed on Canada's Ingredient Disclosure List.

US Federal
TSCA
   CAS# 51-35-4 is listed on the TSCA Inventory.

Section 16 - Other Information
MSDS Creation Date: 9/02/1997
Revision #5 Date 7/20/2009
The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantibility 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 event shall the company 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 howsoever arising, even if the company has been advised of the possibility of such damages.

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