Material Safety Data Sheet
1,2,4-1H-Triazole, 99.5%

MSDS# 51754

Section 1 - Chemical Product and Company Identification

MSDS Name: 1,2,4-1H-Triazole, 99.5%
Catalog Numbers: AC139280000, AC139280050, AC139280250, AC139281000, AC139285000
Synonyms: None Known.

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#: 288-88-0
Chemical Name: 1,2,4-1H-Triazole,
%: 99.5
EINECS#: 206-022-9

Hazard Symbols: XN
Risk Phrases: 22 36

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Warning! Causes eye irritation. The toxicological properties of this material have not been fully investigated. May be harmful if swallowed. May cause skin and respiratory tract irritation. Target Organs: No data found.

Potential Health Effects

Eye: Causes eye irritation. May cause chemical conjunctivitis and corneal damage.

Skin: May cause skin irritation.

Ingestion: May cause irritation of the digestive tract. The toxicological properties of this substance have not been fully investigated. May be harmful if swallowed.

Inhalation: May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.

Chronic: No information found.

Section 4 - First Aid Measures
Eyes: Immediately 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 for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or 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.

Notes to Physician:

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Dusts at sufficient concentrations can form explosive mixtures with air. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Runoff from fire control or dilution water may cause pollution.

Extinguishing Media: In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam. Use agent most appropriate to extinguish fire.

Autoignition Temperature: 490 deg C (914.00 deg F)
Flash Point: 140 deg C (284.00 deg F)

Explosion Limits: Not available

Explosion Limits: Upper:

NFPA Rating: health: 2; flammability: 1; instability: 0;

Section 6 - 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. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 7 - Handling and Storage

Handling: ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

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>1,2,4-1H-Triazole,</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
</tbody>
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OSHA Vacated PELs: 1,2,4-1H-Triazole,: None listed

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels.

Exposure Limits

Personal Protective Equipment

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 and clothing to prevent skin exposure.

Clothing: Wear appropriate protective clothing to minimize contact with skin.

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a
Section 9 - Physical and Chemical Properties

Physical State: Flakes
Color: white
Odor: None reported.
PH: Not available
Vapor Pressure: Not available
Vapor Density: Not available
Evaporation Rate: Not available
Viscosity: Not available
Boiling Point: 260 deg C @ 760.00mm Hg (500.00°F)
Freezing/Melting Point: 119 - 121 deg C

Decomposition Temperature:
Solubility in water: 1250 g/l water
Specific Gravity/Density:
Molecular Formula: C2H3N3
Molecular Weight: 69.06

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Incompatible materials, dust generation, excess heat, strong oxidants.
Incompatibilities with Other Materials: Not available
Hazardous Polymerization: Has not been reported.

RTECS#: CAS# 288-88-0: XZ3806000

RTECS:
CAS# **288-88-0**: Draize test, rabbit, eye: 12%;
Draize test, rabbit, skin: 25%;
Oral, mouse: LD50 = 1350 mg/kg;
Oral, rat: LD50 = 1750 mg/kg;

LD50/LC50:

Carcinogenicity: 1,2,4-1H-Triazole, - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information.

Section 12 - Ecological Information

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:
European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN
Risk Phrases:
R 22 Harmful if swallowed.
R 36 Irritating to eyes.
Safety Phrases:
S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)
CAS# 288-88-0: 2

Canada
CAS# 288-88-0 is listed on Canada's DSL List
Canadian WHMIS Classifications: D2B
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# 288-88-0 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA
CAS# 288-88-0 is listed on the TSCA Inventory.

Section 16 - Other Information
MSDS Creation Date: 6/09/1999
Revision #7 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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