Material Safety Data Sheet
Imidazole

MSDS# 00780

Section 1 - Chemical Product and Company Identification

MSDS Name: Imidazole
Catalog Numbers: AC122020000, AC122020020, AC122020050, AC301870000, AC301870010, AC301872500, AC301872500, AC9739295, 12202-1000, 12202-5000, BP305-50, NC9773486, O3196-500
Synonyms: Glyoxaline; Miazoled.

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#: 288-32-4
Chemical Name: Imidazole
%: 99
EINECS#: 206-019-2

Hazard Symbols: C

Risk Phrases: 22 34 63

Section 3 - Hazards Identification

EMERGENCY OVERVIEW
Danger! Harmful if swallowed. Causes burns by all exposure routes. Possible risk of harm to the unborn child. Target Organs: Respiratory system, gastrointestinal system, eyes, skin.

Potential Health Effects
Eye: Causes eye burns.
Skin: Causes skin burns. May be harmful if absorbed through the skin.
Ingestion: Harmful if swallowed. Causes gastrointestinal tract burns.
Inhalation: Causes chemical burns to the respiratory tract. May be harmful if inhaled.
Chronic: Possible risk of harm to the unborn child.

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 immediately.

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Do not induce vomiting. Get medical aid immediately. Call a poison control center.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

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.

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

Autoignition Temperature: 480 deg C (896.00 deg F)
Flash Point: 145 deg C (293.00 deg F)

Explosion Limits: Not available

Upper: Not available

NFPA Rating: health: 3; 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. Wear a self contained breathing apparatus and appropriate personal protection. (See Exposure Controls, Personal Protection section). Avoid generating dusty conditions. Provide ventilation. Do not let this chemical enter the environment.

Section 7 - Handling and Storage

Handling: Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale.

Storage: Store in a cool, dry place. Store in a tightly closed container. Corrosives area.

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>Imidazole</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs: Imidazole: None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.

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 to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.
Section 9 - Physical and Chemical Properties

Physical State: Solid
Color: white to pale yellow - light beige
Odor: amine-like
pH: 10.5 (6.7% aq.sol.)
Vapor Pressure: 0.003 mbar @ 20 deg C
Vapor Density: Not available
Evaporation Rate: Negligible.
Viscosity: Not available
Boiling Point: 255 - 256 deg C @ 760 mmHg
Freezing/Melting Point: 86 - 90 deg C
Decomposition Temperature: Not available
Solubility in water: 633 g/L (20°C)
Specific Gravity/Density: Not available.
Molecular Formula: C3H4N2
Molecular Weight: 68.08

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Incompatible materials, dust generation, excess heat.
Incompatibilities with Other Materials Strong oxidizing agents, acids, acid chlorides.
Hazardous Decomposition Products Hydrogen cyanide, nitrogen oxides, carbon monoxide, carbon dioxide, ammonia.
Hazardous Polymerization Will not occur.

Section 11 - Toxicological Information

RTECS#:
CAS# 288-32-4: NI3325000
RTECS:
LD50/LC50:

RTECS:
CAS# 288-32-4: Oral, mouse: LD50 = 880 mg/kg;
Oral, rat: LD50 = 220 mg/kg;

Carcinogenicity: Imidazole - 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

Other: Do not empty into drains.

Section 13 - Disposal Considerations

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

Section 14 - Transport Information

US DOT
Shipping Name: CORROSIVE SOLID, BASIC, ORGANIC, N.O.S.
Hazard Class: 8
UN Number: UN3263
Packing Group: III
Canada TDG
Shipping Name: CORROSIVE SOLID, BASIC, ORGANIC, N.O.S. (IMIDAZOLE)
Hazard Class: 8
UN Number: UN3263
Packing Group: III

Section 15 - Regulatory Information

European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols: C
Risk Phrases:
R 22 Harmful if swallowed.
R 34 Causes burns.
R 63 Possible risk of harm to the unborn child.

Safety Phrases:
S 22 Do not breathe dust.
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)
CAS# 288-32-4: 1

Canada
CAS# 288-32-4 is listed on Canada's DSL List
Canadian WHMIS Classifications: E, D1B, D2A
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# 288-32-4 is not listed on Canada's Ingredient Disclosure List.

US Federal
TSCA
CAS# 288-32-4 is listed on the TSCA Inventory.

Section 16 - Other Information
MSDS Creation Date: 6/28/1999
Revision #11 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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