

Material Safety Data Sheet

Imidazole

ACC# 00780

Section 1 - Chemical Product and Company Identification

MSDS Name: Imidazole

Catalog Numbers: AC122020000, AC122020020, AC122020050, AC122021000, AC122025000, AC301870000, AC301870010, AC301872500, AC9240412, AC9739295, BP305-50, NC9366144, O3196-500, XXAC12202502

Synonyms: 1,3-Diaza-2,4-cyclopentadiene; 1,3-Diazole; Formamidine, N,N'-vinylene-; Glyoxalin; Glyoxaline; Imidazol; Miazole.

Company Identification:

Fisher Scientific
1 Reagent Lane
Fair Lawn, NJ 07410

For information, call: 201-796-7100

Emergency Number: 201-796-7100

For CHEMTREC assistance, call: 800-424-9300

For International CHEMTREC assistance, call: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
288-32-4	Imidazole	99	206-019-2

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: white to beige crystalline powder.

Danger! Causes eye and skin burns. Causes digestive and respiratory tract burns. Harmful if swallowed.

Target Organs: Eyes, skin, mucous membranes.

Potential Health Effects

Eye: Contact with eyes may cause severe irritation, and possible eye burns.

Skin: Exposure may cause irritation and possible burns. May be absorbed through the skin. The severity of injury depends on the concentration of the solution and the duration of exposure.

Ingestion: Harmful if swallowed. Causes digestive tract irritation with possible burns.

Inhalation: Causes respiratory tract irritation with possible burns.

Chronic: Laboratory experiments have resulted in mutagenic effects. May cause adverse reproductive effects. Animal evidence suggests that fetotoxicity and teratogenicity may be observed at doses that also cause harmful effects in the mothers.

Section 4 - First Aid Measures

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid immediately.

Skin: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

Ingestion: If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

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.

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

Flash Point: 145 deg C (293.00 deg F)

Autoignition Temperature: 480 deg C (896.00 deg F)

Explosion Limits, Lower:Not available.

Upper: Not available.

NFPA Rating: (estimated) 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. Clean up spills immediately, observing

precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not breathe dust. Use only with adequate ventilation.

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

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Imidazole	none listed	none listed	none listed

OSHA Vacated PELs: Imidazole: No OSHA Vacated PELs are listed for this chemical.

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: Crystalline powder

Appearance: white to beige

Odor: amine-like

pH: Weak base (aq. sol.)

Vapor Pressure: 0.046 mm Hg @ 25 deg C

Vapor Density: Not available.

Evaporation Rate: Negligible.

Viscosity: Not available.

Boiling Point: 255 - 256 deg C

Freezing/Melting Point: 86 - 90 deg C

Decomposition Temperature: Not available.

Solubility: Soluble.

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: Dust generation, excess heat.

Incompatibilities with Other Materials: Strong oxidizing agents.

Hazardous Decomposition Products: Nitrogen oxides, carbon monoxide, carbon dioxide.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#:

CAS# 288-32-4: NI3325000

LD50/LC50:

CAS# 288-32-4:

Oral, mouse: LD50 = 880 mg/kg;

Oral, rat: LD50 = 220 mg/kg;

Carcinogenicity:

CAS# 288-32-4: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information available.

Teratogenicity: No information available.

Reproductive Effects: Intraperitoneal, mouse: TDLo = 150 mg/kg (male 1 day(s) pre-mating) Paternal Effects - impotence..

Mutagenicity: DNA Inhibition: Human cell types 1mmol/L.

Neurotoxicity: No information available.

Other Studies:

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

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

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 288-32-4 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 288-32-4: immediate.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 288-32-4 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

C

Risk Phrases:

R 22 Harmful if swallowed.

R 34 Causes burns.

Safety Phrases:

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 - DSL/NDL

CAS# 288-32-4 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of D1B, E.

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.

Canadian Ingredient Disclosure List

Section 16 - Additional Information

MSDS Creation Date: 6/28/1999

Revision #7 Date: 6/07/2006

The information above is believed to be accurate and represents the best information currently available to us. 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 event shall Fisher 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 Fisher has been advised of the possibility of such damages.