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**Safety Data Sheet**

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<b>Product Name</b>	<b>Imidazole</b>
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**Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1. Product identification:****Product Description:** Imidazole**Synonyms:** 1,3-Diaza-2,4-cyclopentadiene, Glyoxaline**CAS-No:** 288-32-4**EC-No.:** 206-019-2**Molecular Formula:** C<sub>3</sub>H<sub>4</sub>N<sub>2</sub>**REACH Registration No:** 01-2119485825-24-XXXX.**1.2. Relevant identified uses of the substance or mixture and uses advised against:****Recommended Use:** Laboratory chemicals and Manufacturing of substances**1.3. Details of the supplier of the safety data sheet:**

- **Company** **Finar Limited**  
184-186/P, Chacharwadi Vasna,  
Sarkhej-Bavla Highway,  
Ta.: Sanand, Dist.: Ahmedabad-382110, Gujarat, India.  
Web: [www.finarchemicals.com](http://www.finarchemicals.com)
- **E-Mail Address** [safety.finar@aceto.com](mailto:safety.finar@aceto.com); [info.finar@aceto.com](mailto:info.finar@aceto.com)

**1.4. Emergency Telephone Number:**

- For Emergency contact on: +91 - 2717 - 616 717

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**SECTION 2: HAZARDS IDENTIFICATION****2.1. Classification of the substance or mixture:****Classification according to Regulation (EC) No 1272/2008**

Acute toxicity, Oral (Category 4), H302

Skin corrosion (Sub-category 1C), H314

Serious eye damage (Category 1), H318

Reproductive toxicity (Category 1B), H360D

For the full text of the H-Statements mentioned in this Section, see Section 16.

**2.2. Label Elements:****Labelling according to Regulation (EC) No 1272/2008**

Pictogram



Signal Word: Danger

Hazard statement(s)

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H360D May damage the unborn child.

Precautionary statement(s)

P260 Do not breathe dusts or mists.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard Statements: None

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### Reduced Labelling (<= 125 ml)

Pictogram



Signal Word: Danger

### Hazard statement(s)

H314 Causes severe skin burns and eye damage.

H360D May damage the unborn child.

### Precautionary statement(s)

P260 Do not breathe dusts or mists.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard Statements: None

### 2.3. Other Hazards:

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances: Imidazole

### 3.2. Mixtures:

Component	CAS-No	EC-No.	Weight %
Imidazole	288-32-4	206-019-2	>95

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**SECTION 4: FIRST AID MEASURES****4.1. Description of first aid measures:**

- **General advice**

First aiders need to protect themselves. Show this safety data sheet to the doctor in attendance.

- **If inhaled**

After inhalation: fresh air. Call in physician.

- **In case of skin contact**

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
Call a physician immediately.

- **In case of eye contact**

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist.  
Remove contact lenses.

- **If swallowed**

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation).  
Call a physician immediately. Do not attempt to neutralise.

**4.2. Most important symptoms and effects, both acute and delayed:**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

**4.3. Indication of any immediate medical attention and special treatment needed:**

No data available

**SECTION 5: FIREFIGHTING MEASURES****5.1. Extinguishing media:**

**Suitable Extinguishing Media-** Use water, alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable extinguishing media-** For this substance/mixture no limitations of extinguishing agents are given.

**5.2. Special hazards arising from the substance or mixture:**

Carbon oxides

Nitrogen oxides (NO<sub>x</sub>)

Hydrogen cyanide (hydrocyanic acid)

Combustible.

Vapors are heavier than air and may spread along floors.

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Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapours possible in the event of fire.

**5.3. Advice for firefighters:**

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

**5.4 Further Information:**

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**6.1. Personal precautions, protective equipment and emergency procedures:**

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact.

Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

**6.2. Environmental precautions:**

Do not let product enter drains.

**6.3. Methods and material for containment and cleaning up:**

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area. Avoid generation of dusts.

**6.4. Reference to other sections:**

For disposal see Sections 13.

**SECTION 7: HANDLING AND STORAGE**

**7.1. Precautions for safe handling:**

**Advice on safe handling**

Work under hood. Do not inhale substance/mixture.

**Hygiene measures**

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2.

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**7.2. Conditions for safe storage, including any incompatibilities:**

**Storage conditions**

Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

Corrosive area. Incompatible Materials. Strong oxidizing agents. Acids. Acid chlorides. Acid anhydrides

**7.3. Specific end use(s):**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1. Control parameters:**

**Ingredients with workplace control parameters**

**Derived No Effect Level (DNEL)**

Application Area	Routes of exposure	Health effect	Value
Workers	Inhalation	Long-term systemic effects	10.6 mg/m <sup>3</sup>
Workers	Skin contact	Long-term systemic effects	1.5mg/kg BW/d

**Predicted No Effect Concentration (PNEC)**

Compartment	Value
Soil	0.0425 mg/kg
Sea water	0.013 mg/l
Fresh water	0.13 mg/l
Sea sediment	0.0336 mg/kg
Fresh water sediment	0.336 mg/kg
Sewage treatment plant	10 mg/l

Engineering Measures: Use only under a chemical fume hood. Ensure that eyewash stations and safety Showers are close to the workstation location

**8.2. Exposure Controls:**

**Personal Protective Equipment:**

- **Eye & Face Protection-**

Use equipment for eye protection tested and approved under appropriate government standards such as

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NIOSH (US) or EN 166(EU). Tightly fitting safety Goggles

- **Hand Protection -**

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Full contact: -

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatril® L

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Splash contact: -

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatril® L

- **Other Protective equipment-**

Protective clothing

- **Respiratory Protection-**

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P3

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

- **Environmental Exposure Controls-**

Do not let product enter drains.

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1. Information on basic physical and chemical properties:**

- **Appearance:** White light yellow
- **Physical State:** Solid
- **Odor:** amine-like
- **Odor Threshold:** No data available
- **pH:** 10.5 (6.7 % aq solution)
- **Melting Point:** 88 - 91 °C
- **Boiling Point:** 255 °C - 256 °C
- **Flammability (solid, gas):** No data available
- **Critical Temperature:** No data available
- **Vapor Pressure:** 0.003 hPa at 20 °C - OECD Test Guideline 104
- **Relative Vapor Density:** No data available
- **Specific Gravity / Density:** No data available
- **Auto-Ignition Temperature:** 480 °C
- **Ignition Temperature:** No data available
- **Volatility:** No data available
- **Bulk Density:** No data available
- **Viscosity, dynamic:** 2.696 mPa.s at 100 °C
- **Viscosity, Kinematic:** No data available
- **Water/Oil Dist. Co eff.:** No data available
- **Partition Co-efficient: n-octanol/Water:** No data available
- **Ionicity (in Water):** No data available
- **Lower Explosion Limit:** No data available
- **Upper Explosion Limit:** No data available
- **Flash Point:** 145 °C
- **Water Solubility:** No data available

**9.2. Other information:**

- **Molecular Formula:** C<sub>3</sub>H<sub>4</sub>N<sub>2</sub>
- **Molecular Weight:** 68.08 g/mol



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**SECTION 10: STABILITY AND REACTIVITY****10.1. Reactivity:**

Forms explosive mixtures with air on intense heating.

A range from approx. 15 Kelvin below the flash point is to be rated as critical.

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

**10.2. Chemical stability:**

The product is chemically stable under standard ambient conditions (room temperature).

**10.3. Possibility of hazardous reactions:**

Violent reactions possible with:

Strong oxidizing agents

Acid chlorides

Acid anhydrides

acids

**10.4. Conditions to avoid:**

Avoid dust formation. Incompatible products. Excess heat. Exposure to air or moisture over prolonged periods.

**10.5. Incompatible materials:**

Strong oxidizing agents, Acids, Acid chlorides, Acid anhydrides

**10.6. Hazardous decomposition products:**

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Nitrogen oxides (NO<sub>x</sub>),

Hydrogen cyanide (hydrocyanic acid), Ammonia

**SECTION 11: TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects:****Acute toxicity**

LD50 Oral - Rat - 970 mg/kg

(OECD Test Guideline 401)

**Skin irritation**

Skin - Rabbit

Result: Corrosive after 1 to 4 hours of exposure - 4 h

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(OECD Test Guideline 404)  
 (Regulation (EC) No 1272/2008, Annex VI)

**Eye irritation**

Eyes - Rabbit  
 Result: Causes serious eye damage.

(OECD Test Guideline 405)  
 Causes serious eye damage.

**Sensitisation**

No data available

**Germ cell mutagenicity**

Test Type: Ames test  
 Test system: Salmonella typhimurium  
 Metabolic activation: with and without metabolic activation  
 Method: OECD Test Guideline 471  
 Result: negative

Test Type: In vitro mammalian cell gene mutation test  
 Test system: Chinese hamster lung cells  
 Metabolic activation: with and without metabolic activation  
 Method: OECD Test Guideline 476  
 Result: negative

Test Type: In vitro mammalian cell gene mutation test  
 Test system: mouse lymphoma cells  
 Metabolic activation: with and without metabolic activation  
 Method: OECD Test Guideline 476  
 Result: negative

Test Type: unscheduled DNA synthesis assay  
 Test system: rat hepatocytes  
 Method: OECD Test Guideline 482  
 Result: negative

Test Type: In vivo micronucleus test  
 Species: Mouse  
 Cell type: Bone marrow

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Application Route: Oral

Method: OECD Test Guideline 474

Result: negative

**Carcinogenicity**

No data available

**Reproductive toxicity**

May damage the unborn child.

**Teratogenicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**11.2 Further Information:**

Repeated dose toxicity - Rat - male and female - Oral - 90 d - NOAEL (No observed adverse effect level)

– 60 mg/kg Remarks: Sub chronic toxicity

RTECS: NI3325000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## **SECTION 12: ECOLOGICAL INFORMATION**

**12.1. Toxicity:****Toxicity to daphnia and other aquatic invertebrates**

Static test EC50 - Daphnia magna (Water flea) - 341,5 mg/l - 48 h

(Regulation (EC) No. 440/2008, Annex, C.2)

**Toxicity to algae**

Static test ErC50 - Desmodesmus subspicatus (green algae) – 133 mg/l - 72 h (DIN 38412)

**Toxicity to bacteria**

Static test EC50 - activated sludge - > 1.000 mg/l - 30 min (OECD Test Guideline 209)

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### 12.2 Persistence and degradability:

Biodegradability aerobic - Exposure time 18 d  
Result: 90 - 100 % - Readily biodegradable. (OECD Test Guideline 301A)

### 12.3 Bioaccumulate potential:

No data available

### 12.4 Mobility in soil:

No data available

### 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### 12.6 Other adverse effects:

No data available

## **SECTION 13: Disposal considerations**

### 13.1 Waste treatment methods:

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## **SECTION 14: Transport information**

	<b>Land transport (ADR/RID)</b>	<b>Air transport (IATA)</b>	<b>Sea transport (IMDG)</b>
<b>14.1 UN number</b>	3263		
<b>14.2 Proper shipping name</b>	CORROSIVE SOLID, BASIC, ORGANIC, N.O.S. (Imidazole)		
<b>14.3 Class</b>	8		
<b>14.4 Packing group</b>	III		
<b>14.5 Environmentally hazardous</b>	No	No	No
<b>14.6 Special precautions for user</b>	No data available		
<b>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not Relevant		

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**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

**Authorisations and/or restrictions on use****National legislation**

Seveso III: Directive 2012/18/EU of the : Not applicable  
European Parliament and of the Council on the  
control of major-accident hazards involving dangerous substances.

**Other regulations**

Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

Take note of Dir 94/33/EC on the protection of young people at work.

**15.2 Chemical safety assessment:**

For this product a chemical safety assessment was not carried out.

**SECTION 16: Other information****Full text of H-Statements referred to under sections 2 and 3.**

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H360D May damage the unborn child.

**Training advice**

Provide adequate information, instruction and training for operators.

**References:** Not available

**Created:** 17/02/2022

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