

Address: National industry, Pipodra GIDC, Surat-394110, Gujarat, India.

Email: cynorlaboratories@gmail.com Mobile No.: +91 8799070507

**MATERIAL SAFETY DATA SHEET**

<b>Product Name</b>	<b>KARL FISCHER REAGENT PYRIDINE FREE</b>
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**1. Identification of the substance/mixture and of the company/undertaking**

**1.1 Product identifier**

**Trade name :** KARL FISCHER REAGENT PYRIDINE FREE

**Product code :** K0003

**Identification of the product:** KARL FISCHER REAGENT PYRIDINE FREE

**1.2 Relevant identified uses of the substance or mixture and uses advised**

**against Use:** Industrial. For professional use only.

**1.3 Details of the supplier of the safety data sheet**

**Company identification:** CYNOR

National industry, Pipodra GIDC, Surat-394110, Gujarat, India.

**Email:** cynorlaboratories@gmail.com **Mobile No.:** +91 8799070507

**2. Hazards identification -DSD**

**2.1 Classification of the substance or mixture**

**Classification EC 67/548 or EC 1999/45**

**Classification :** Repr. Cat. 2; R60-61

Xn; R20/21/22

R10

**Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)**

**Health hazards :** Reproductive toxicity - Fertility - Category 1A - Danger (CLP :

Repr.1A) H360

Reproductive toxicity - Unborn Child - Category 1A - Danger (CLP :

Repr. 1A)H360

Specific Target Organ Toxicity - Repeated exposure - Category 2 - Warning

(CLP :STOT RE 2) H373

Acute toxicity, Inhalation - Category 4 - Warning (CLP : Acute Tox. 4)

H332Acute toxicity, Oral - Category 4 - Warning (CLP : Acute Tox. 4)

H302 Acute toxicity, dermal - Category 4 - Warning (CLP : Acute Tox.

4) H312 Skin irritation - Category 2 - Warning (CLP : Skin Corr. 2)

H315

Serious eye damage - Category 1 - Danger (CLP : Eye Dam. 1) H318

**2.2Label element**

**Labelling EC 67/548 or EC 1999/45**

**Symbol(s) :** T : toxic



**R Phrase(s) :** R20/21/22 : Harmful by inhalation, in contact with skin and if swallowed.R10 : Flammable

R60 : May impair fertility.

R61 : May cause harm to the unborn child.

**S Phrase(s) :** S4 : Keep away from living quarters.

S24 : Avoid contact with skin.

S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
 S28 : After contact with skin, wash immediately with  
 S35 : This material and its container must be disposed of in a safe way.  
 S36/37/39 : Wear suitable protective clothing, gloves and eye/face protection.  
 S38 : In case of insufficient ventilation, wear suitable respiratory equipment.  
 S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label when possible).  
 S53 : Avoid exposure - obtain special instructions before use.  
 S59 : Refer to manufacturer/supplier for information on recovery/recycling.

**Labelling Regulation EC 1272/2008**

**(CLP) Hazard pictograms**



**Signal words : Danger**

**Hazard statements :** H318 : Causes serious eye damage. H360F : May damage fertility.

H360D : May damage the unborn child. H302 : Harmful if swallowed.

H312 : Harmful in contact with skin. H315 : Causes skin irritation.

H332 : Harmful if inhaled.

H373 : May cause damage to organs through prolonged or repeated exposure.

**Precautionary statements**

**General :** P201: Obtain special instructions before use.

**Prevention :** P280: Wear protective gloves, protective clothing, eye protection, face protection.

P271: Use only outdoors or in a well-ventilated area.

P260: Do not breathe dust, fume, gas, mist, vapours, spray. P264: Wash thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

**Response :** P302+P352: IF ON SKIN : Wash with plenty of soap and water.

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

P308+P313: If exposed or concerned : get medical advice. P332+P313: If skin irritation occurs : Get medical advice.

P305+P351+P338: IF IN EYES : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P304+P340: IF INHALED : Remove to fresh air and keep at rest in a position comfortable for breathing.

P363: Wash contaminated clothing before reuse. P314: Get medical advice if you feel unwell.

**Storage :** P405: Store locked up.

**Disposal considerations :** P501: Dispose of this material and its container to

hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

**Special labelling :** Restricted to professional users. (Substances which appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008)

### **2.3 Other hazards**

**Other hazards :** The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

## **3. Composition/information on ingredients**

**Substance / Preparation :** Preparation.

**Hazardous component(s) :** This product is hazardous.

<b>Substance name</b>	<b>Contents</b>	<b>CAS No</b>
<b>2-Methoxyethanol :</b>	> 50 < 75 %	109-86-4
<b>Sulphur dioxide :</b>	> 5 < 10 %	7446-09-5
<b>Iodine :</b>	> 10 < 15 %	7553-56-2
<b>2,2'-iminodiethanol :</b>	> 10 < 15 %	111-42-2

## **4. First aid measures**

### **4.1 Description of first aid measures**

**Inhalation :** Assure fresh air breathing. Allow the victim to rest. Specific treatment is urgent (see on this label). Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor.

**Skin contact :** Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash contaminated clothing before reuse.

Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Specific treatment (see on this label). Immediately call a POISON CENTER or doctor.

**Eye contact :** Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

**Ingestion :** Do NOT induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor. Specific treatment (see on this label).

### **4.2 Most important symptoms and effects, both acute and delayed**

**Symptoms relating to use :** Causes damage to organ. Causes serious eye damage.

May damage fertility. May damage the unborn child. Causes skin irritation.

Repeated exposure to this material can result in absorption through skin causing significant health hazard. Danger of serious damage to health by prolonged exposure through inhalation. Swallowing a small quantity of this material will result in serious health hazard.

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

**General information :** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

## **5. Fire-fighting measures**

### **5.1 Extinguishing media**

**Suitable extinguishing media :** Foam. Dry powder. Carbon dioxide. Water spray. Sand.

**Unsuitable extinguishing media :** Do not use a heavy water stream.

**Surrounding fires :** Use water spray or fog for cooling exposed containers.

**5.2 Specific hazards arising from the substance or mixture**

**Hazardous combustion products :** Under fire conditions, hazardous fumes will be present.

**5.3 Advice for fire-fighters**

**Protection against fire :** Do not enter fire area without proper protective equipment, including respiratory protection.

**Special procedures :** Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

**6. Accidental release measures**

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

**For emergency responders:**

Equip cleanup crew with proper protection. Ventilate area.

**For non-emergency personnel:**

Evacuate unnecessary personnel.

**6.2 Environmental precautions**

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

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

**Clean up methods :** Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Store away from other materials. Collect spillage.

**6.4 Reference to other sections**

See section 8. Exposure controls/personal protection

**7. Handling and storage**

**7.1 Precautions for safe handling**

**Handling :** Wash thoroughly after handling. Obtain special instructions before use. Do not eat, drink or smoke when using this product. Avoid breathing dust, fume, gas, mist, vapours, spray. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling.

**Technical protective measures :** Provide good ventilation in process area to prevent formation of vapour.

**Special precautions :** Avoid breathing dust, fume, gas, mist, vapours, spray.

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

**Storage :** Keep only in the original container in a cool, well ventilated place. Keep container closed when not in use.

**Storage - away from :** Strong bases. Strong acids. Sources of ignition. Direct sunlight.

**7.3 Specific end use(s)**

No additional information available

**8. Exposure controls/personal protection**

**8.1 Control parameter**

**Occupational Exposure Limits :** No data available.

**8.2 Exposure control**

**Personal protection :** Avoid all unnecessary exposure.

- **Respiratory protection :** In case of insufficient ventilation, wear suitable respiratory equipment

- **Hand protection** : Wear protective gloves.
- **Eye protection** : Chemical goggles or safety glasses.
- Others** : When using, do not eat, drink or smoke

## **9. Physical and chemical properties**

### **9.1 Information on basic physical and chemical properties**

**Physical state at 20 °C** : Liquid

**Odour**: Characteristic

**Odour threshold** : 2.4 ppm

**pH value** : Not applicable.

**Melting point [°C]** : -42 °C

**Decomposition point [°C]** : N/A

**Critical temperature [°C]** : N/A

**Auto-ignition temperature [°C]** : N/A

**Flammability (solid, gas)** : Flammable

**Flash point [°C]** : N/A

**Boiling point [°C]** : 115.3 °C

**Initial boiling point [°C]** : N/A

**Final boiling point [°C]** : N/A

**Evaporation rate** : N/A

**Vapour pressure [20°C]** : N/A

**Vapour pressure mm/Hg** : 7.64 mm of Hg (@ 20 °)

**Vapour density** : 2.73

**Density [g/cm<sup>3</sup>]** : 1.12

**Relative density, gas (air=1)** : N/A

**Relative density, liquid (water=1)** : N/A

**Solubility in water [% weight]** : Miscible

**Solubility in water** : N/A

**Log Pow octanol / water at 20°C** : No data available.

**Solubility** : Bases

**Viscosity at 40°C [mm<sup>2</sup>/s]** : N/A

### **9.2 Other information**

**Explosive properties** : N/A

**Explosion limits - upper [%]** : N/A

**Explosion limits - lower [%]** : N/A

**Oxidising properties** : No data available

## **10. Stability and reactivity**

### **10.1 Reactivity**

**Reactivity** : Not established.

### **10.2 Chemical stability**

**Chemical stability** : Stable under recommended storage conditions.

### **10.3 Possibility of hazardous reactions**

**Hazardous reactions** : Not established.

### **10.4 Conditions to avoid**

**Conditions to avoid :** Direct sunlight. Extremely high or low temperatures.

**10.5 Incompatible materials**

**Materials to avoid :** Strong acids. Strong bases.

**10.6 Hazardous decomposition products**

**Hazardous decomposition products :** Fumes. Carbon monoxide. Carbon dioxide.

**11. Toxicological information**

**11.1 Information on toxicological effects**

**Toxicity information :** The product has been not fully tested. The calculated risk has been done under the requirements of the EU regulations.

**Acute toxicity**

• **Inhalation :** Harmful if inhaled.

• **Dermal :** Harmful in contact with skin.

• **Ingestion :** Harmful if swallowed.

**Corrosion :** Causes serious eye damage.

**Irritation :** Causes skin irritation.

**Sensitization :** Based on available data, the classification criteria are not met.

**Mutagenicity :** Based on available data, the classification criteria are not met.

**Carcinogenicity :** Based on available data, the classification criteria are not met.

**Toxic for reproduction :** May damage fertility. May damage the unborn child.

**STOT-single exposure :** Based on available data, the classification criteria are not met.

**STOT-repeated exposure :** May cause damage to organs through prolonged or repeated exposure.

**Aspiration hazard :** Based on available data, the classification criteria are not met.

**12. Ecological information**

**12.1 Toxicity**

**Toxicity information :** The product has been not fully tested. The calculated risk has been done under the requirements of the EU regulations.

**12.2 Persistence – degradability**

**Persistence - degradability :** Biodegradable.

**12.3 Bioaccumulative potential**

**Bioaccumulative potential :** Not established.

**12.4 Mobility in soil**

**Mobility in soil :** Not established.

**12.5 Results of PBT and vPvB assessment**

**Results of PBT and vPvB assessment :** The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

**12.6 Other adverse effects**

**Environmental precautions :** Avoid release to the environment.

**13. Disposal considerations**

**13.1 Waste treatment methods**

**General :** Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations. Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

#### **14. Transport information**

##### **14.1 Land transport (ADR-RID)**

UN N° : 1188

H.I. nr : 30

ADR - Class : 3

Labelling - Transport : 3 : Flammable liquid.

ADR - Classification code : F1

ADR - Group : III

ADR - Packing instructions : P001 R001 LP001

ADR - Limited Quantity : 5 L

ADR - Tunnel code : C/E : Tank carriage: Passage forbidden through tunnels of category C, D and E. Other carriage: Passage forbidden through tunnels of category E.

##### **14.2 Sea transport (IMDG) [English only]**

UN N° : 1188

IMO-IMDG - Class or division : 3 : Flammable liquid.

IMO-IMDG - Packing group : III

IMO-IMDG - Packing instructions : P001 LP01

IMO-IMDG - Limited quantities : 5 L

IMO-IMDG - Marine pollution : No

EMS-Nr : F-E S-D

##### **14.3 Air transport (ICAO-IATA) [English only]**

UN N° : 1188

IATA - Class or division : 3 : Flammable liquid.

IATA - Packing group : III

IATA - Passenger and Cargo Aircraft : ALLOWED

Passenger and Cargo - Packing : 355  
instruction

Passenger and Cargo - Maximum : 60 L

Quantity/Packing

IATA - Cargo only : ALLOWED

Cargo only - Packing instruction : 366

Cargo only - Maximum Quantity/ : 220 L

Packing

IATA - Limited Quantities : 10 L

ERG-Nr : 3L

#### **15. Regulatory information**

##### **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Safety, health and environmental** : Ensure all national/local regulations are observed.

**regulations/legislation specific for the substance or mixture**

**REACH Restrictions - Annex XVII** : The components of this product are not subject to restrictions.

**REACH Authorisation - Annex XIV** : The components of this product are not subject to authorization.

##### **15.2 Chemical safety assessment**

**Chemical Safety Assessment** : It has not been carried out.



## CYNOR LABORATORY

**Address: National industry, Pipodra GIDC, Surat-394110, Gujarat, India.**

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### **16. Other information**

**Abbreviations and acronyms :** PBT: persistent, bioaccumulative and toxic.vPvB: very persistent and very bioaccumulative

**Sources of key data used :** REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

**Further information :** None.

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### **End of document**

**Prepared by: CYNOR**

**For questions contact: CYNOR**

**Office: CYNOR**

National industry, Pipodra GIDC, Surat-394110, Gujarat, India.

**Email: cynorlaboratories@gmail.com Mobile No.: +91 8799070507**

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