



# Qualikems Lifesciences Pvt. Ltd.

(Formerly known as Qualikems fine chem Pvt Ltd)

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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### Product identifiers

Product name : Piperidine

CAS-No. : 110-89-4

### Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Industrial & for professional use only.

### Details of the supplier of the safety data sheet

Company : Qualikems Lifesciences Pvt Ltd

Works : Plot No. 68.69,G.I.D.C  
Industrial Estate, Nandesari,  
Vadodara-391340 (Gujarat)

### Emergency telephone number

Emergency Phone # : +91-265-2841531 (9:00am - 6:30 pm) [Office hours]

## SECTION 2: Hazards identification

### Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008

Flammable liquids (Category 2), H225

Acute toxicity, Oral (Category 4), H302

Acute toxicity, Inhalation (Category 3), H331

Acute toxicity, Dermal (Category 3), H311

Skin corrosion (Category 1B), H314

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

### Label elements

#### Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word

Danger

Hazard statement(s)

H225

Highly flammable liquid and vapour.

H302

Harmful if swallowed.

H311 + H331

Toxic in contact with skin or if inhaled.

H314

Causes severe skin burns and eye damage.

|                                |  |
|--------------------------------|--|
| Precautionary statement(s)     |  |
| P210                           | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.                                   |
| P280                           | Wear protective gloves/ protective clothing/ eye protection/ face protection.  |
| 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. |
| P370 + P378                    | In case of fire: Use dry powder or dry sand to extinguish.   |
| P403 + P235                    | Store in a well-ventilated place. Keep cool.   |
| Supplemental Hazard Statements | none   |

#### 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

|                  |   |                                  |
|------------------|---|----------------------------------|
| Synonyms         | : | Hexahydropyridine                |
| Formula          | : | C <sub>5</sub> H <sub>11</sub> N |
| Molecular weight | : | 85.15 g/mol                      |
| CAS-No.          | : | 110-89-4                         |
| EC-No.           | : | 203-813-0                        |
| Index-No.        | : | 613-027-00-3                     |

#### Hazardous ingredients according to Regulation (EC) No 1272/2008

| Component         |              | Classification               | Concentration |
|-------------------|--------------|------------------------------|---------------|
| <b>Piperidine</b> |              |                              |               |
| CAS-No.           | 110-89-4     | Flam. Liq. 2; Acute Tox. 4;  | <= 100 %      |
| EC-No.            | 203-813-0    | Acute Tox. 3; Skin Corr. 1B; |               |
| Index-No.         | 613-027-00-3 | H225, H302, H331, H311, H314 |               |

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

### SECTION 4: First aid measures

#### Description of first aid measures

##### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

##### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

##### In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

##### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

##### If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

#### 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

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

No data available

## **SECTION 5: Firefighting measures**

### **Extinguishing media**

#### **Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### **Special hazards arising from the substance or mixture**

Carbon oxides, Nitrogen oxides (NOx)

#### **Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

#### **Further information**

Use water spray to cool unopened containers.

## **SECTION 6: Accidental release measures**

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

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

For personal protection see section 8.

### **Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

### **Methods and materials for containment and cleaning up**

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

### **Reference to other sections**

For disposal see section 13.

## **SECTION 7: Handling and storage**

### **Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

For precautions see section 2.2.

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

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Storage class (TRGS 510): Flammable liquids

### **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**

### **Control parameters**

### **Exposure controls**

#### **Appropriate engineering controls**

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

#### **Personal protective equipment**

##### **Eye/face protection**

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body Protection**

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use (US) or type ABEK (EN 14387) respirator cartridges as a backup to enginee protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**SECTION 9: Physical and chemical properties****Information on basic physical and chemical properties**

|   |  |
|---|--|
| a) Appearance                                   | Form: clear, liquid<br>Colour: colourless                      |
| b) Odour  | No data available  |
| c) Odour Threshold                              | No data available  |
| d) pH   | No data available  |
| e) Melting point/freezing point                 | Melting point/range: -13 °C                                    |
| f) Initial boiling point and boiling range      | 104 - 106 °C at 1013 hPa                                       |
| g) Flash point                                  | 16 °C - closed cup   |
| h) Evaporation rate                             | No data available  |
| i) Flammability (solid, gas)                    | No data available  |
| j) Upper/lower flammability or explosive limits | No data available  |
| k) Vapour pressure                              | 40 mmHg at 29.2 °C<br>23 mmHg at 20 °C<br>63.6 mmHg at 37.8 °C |
| l) Vapour density                               | 2.94 - (Air = 1.0)   |
| m) Relative density                             | 0.862 g/cm <sup>3</sup>  |
| n) Water solubility                             | soluble  |
| o) Partition coefficient: n-octanol/water       | log Pow: 0.67  |
| p) Auto-ignition temperature                    | No data available  |
| q) Decomposition temperature                    | No data available  |

- r) Viscosity No data available  
s) Explosive properties No data available  
t) Oxidizing properties No data available

**Other safety information**

Relative vapour density 2.94 - (Air = 1.0)

**SECTION 10: Stability and reactivity**

**Reactivity**

No data available

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

No data available

**Conditions to avoid**

Heat, flames and sparks.

**Incompatible materials**

Strong oxidizing agents, Dicyanofurazan, N-nitrosoacetanilide, N-perchlorylpiperazine

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx)

Other decomposition products - No data available

In the event of fire: see section 5

**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

**Acute toxicity**

LD50 Oral - Rat - 400 mg/kg(Piperidine)

LC50 Inhalation - Mouse - 2 h - 6,000 mg/m<sup>3</sup>(Piperidine)

LD50 Dermal - Rabbit - 276 mg/kg(Piperidine)

**Skin corrosion/irritation**

Skin - Rabbit(Piperidine)

Result: Severe skin irritation - 24 h

**Serious eye damage/eye irritation**

Eyes - Rabbit(Piperidine)

Result: Severe eye irritation - 24 h

**Respiratory or skin sensitisation**

No data available(Piperidine)

**Germ cell mutagenicity**

Mouse(Piperidine)

lymphocyte DNA damage Mouse(Piperidine) lymphocyte

Mutation in mammalian somatic cells.

**Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity**

**Specific target organ toxicity - single exposure**

No data available(Piperidine)

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available(Piperidine)

**Additional Information**

RTECS: TM3500000

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea(Piperidine)

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

**SECTION 12: Ecological information****Toxicity**

Toxicity to fish LC50 - Leuciscus idus (Golden orfe) - 46 - 100 mg/l - 96 h(Piperidine)

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available(Piperidine)

**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.

**Other adverse effects**

Harmful to aquatic life.

No data available

**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Product**

Burn in a chemical incinerator equipped with an afterburner and scrubber b highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

**SECTION 14: Transport information****UN number**

ADR/RID: 2401

IMDG: 2401

IATA: 2401

**UN proper shipping name**

ADR/RID: PIPERIDINE

IMDG: PIPERIDINE

IATA: Piperidine

**14.3 Transport hazard class(es)**

ADR/RID: 8 (3)

IMDG: 8 (3)

IATA: 8 (3)

**14.4 Packaging group**

ADR/RID: I

IMDG: I

IATA: I

**14.5 Environmental hazards**

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

**14.6 Special precautions for user**

No data available

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

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

### **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.**

|             |   |
|-------------|---|
| H225        | Highly flammable liquid and vapour.       |
| H302        | Harmful if swallowed.                     |
| H311        | Toxic in contact with skin.               |
| H311 + H331 | Toxic in contact with skin or if inhaled. |
| H314        | Causes severe skin burns and eye damage.  |
| H331        | Toxic if inhaled.                         |

#### **Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Qualikems Lifesciences Pvt. Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.qualikems.com](http://www.qualikems.com) for additional terms and conditions of sale.