# Chemical Book India

Chemical Safety Data Sheet MSDS / SDS								
1-methylpiperidine SDS Revision Date:2024-04-25 Revision Number:1								
Section 1 Section 9	Section 2 Section 10	Section 3 Section 11	Section 4 Section 12	Section 5 Section 13	Section 6 Section 14	Section 7 Section 15	Section 8 Section 16	
SECTION 1: Identification of the substance/mixture and of the company/undertaking Product identifier								
Product name: CAS:		1-methylpiperidine 626-67-5						
Relevant identified uses of the substance or mixture and uses advised against								
Relevant identified uses:		For R&D use only. Not for medicinal, household or other use.						

Uses advised none against:

## **Company Identification**

Company:	Chemicalbook.in		
Address:	5 vasavi Layout Basaveswara Nilayam Pragathi Nagar Hyderabad, India -500090		
Telephone:	+91 9550333722		

# **SECTION 2: Hazards identification**

## Classification of the substance or mixture

Flammable liquids, Category 2 Acute toxicity - Category 4, Oral Acute toxicity - Category 4, Dermal Skin corrosion, Sub-category 1B Serious eye damage, Category 1 Acute toxicity - Category 3, Inhalation Hazardous to the aquatic environment, long-term (Chronic) - Category Chronic 3

### GHS label elements, including precautionary statements

Pictogram(s)



Signal word Danger

### Hazard statement(s)

H225 Highly flammable liquid and vapour H302 Harmful if swallowed H312 Harmful in contact with skin H314 Causes severe skin burns and eye damage H331 Toxic if inhaled H412 Harmful to aquatic life with long lasting effects

## Precautionary statement(s)

## Prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof [electrical/ventilating/lighting/...] equipment.
P242 Use non-sparking tools.
P243 Take action to prevent static discharges.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...
P264 Wash ... thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.

### Response

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water [or shower]. P370+P378 In case of fire: Use ... to extinguish. P301+P317 IF SWALLOWED: Get medical help. P330 Rinse mouth. P302+P352 IF ON SKIN: Wash with plenty of water/... P317 Get medical help. P321 Specific treatment (see ... on this label). P362+P364 Take off contaminated clothing and wash it before reuse. P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P363 Wash contaminated clothing before reuse. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P316 Get emergency medical help immediately. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P305+P354+P338 IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

### Storage

P403+P235 Store in a well-ventilated place. Keep cool. P405 Store locked up. P403+P233 Store in a well-ventilated place. Keep container tightly closed.

#### Disposal

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

### Other hazards which do not result in classification

no data available

# SECTION 3: Composition/information on ingredients

#### Substance

Chemical name:	1-methylpiperidine
Common names and	1-methylpiperidine
synonyms:	
CAS number:	626-67-5

EC number: 210-959-9 Concentration: 100%

## **SECTION 4: First aid measures**

#### Description of necessary first-aid measures

### If inhaled

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

### Following skin contact

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.

### Following eye contact

Rinse with pure water for at least 15 minutes. Consult a doctor.

### Following ingestion

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

### Most important symptoms/effects, acute and delayed

Excerpt from ERG Guide 132 [Flammable Liquids - Corrosive]: May cause toxic effects if inhaled or ingested/swallowed. Contact with substance may cause severe burns to skin and eyes. Fire will produce irritating, corrosive and/or toxic gases. Vapors may cause dizziness or suffocation. Runoff from fire control or dilution water may cause pollution. (ERG, 2016)

### Indication of immediate medical attention and special treatment needed, if necessary

no data available

# **SECTION 5: Firefighting measures**

### Suitable extinguishing media

Excerpt from ERG Guide 132 [Flammable Liquids - Corrosive]: Some of these materials may react violently with water. SMALL FIRE: Dry chemical, CO2, water spray or alcohol-resistant foam. LARGE FIRE: Water spray, fog or alcohol-resistant foam. Move containers

from fire area if you can do it without risk. Dike fire-control water for later disposal; do not scatter the material. Do not get water inside containers. FIRE INVOLVING TANKS OR CAR/TRAILER LOADS: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn. (ERG, 2016)

### Specific hazards arising from the chemical

Excerpt from ERG Guide 132 [Flammable Liquids - Corrosive]: Flammable/combustible material. May be ignited by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapor explosion hazard indoors, outdoors or in sewers. Those substances designated with a (P) may polymerize explosively when heated or involved in a fire. Runoff to sewer may create fire or explosion hazard. Containers may explode when heated. Many liquids are lighter than water. (ERG, 2016)

#### Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

# SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

### Environmental precautions

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

### Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

# SECTION 7: Handling and storage

### Precautions for safe handling

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

## Conditions for safe storage, including any incompatibilities

Store the container tightly closed in a dry, cool and well-ventilated place. Store apart from foodstuff containers or incompatible materials.

# SECTION 8: Exposure controls/personal protection

**Control parameters** 

### Occupational Exposure limit values

no data available

### Biological limit values

no data available

## Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

## Individual protection measures, such as personal protective equipment (PPE)

## Eye/face protection

Wear tightly fitting safety goggles with side-shields conforming to EN 166(EU) or NIOSH (US).

### Skin protection

Wear fire/flame resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

## **Respiratory protection**

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

## Thermal hazards

no data available

# SECTION 9: Physical and chemical properties and safety characteristics

Physical state:	Liquid.		
Colour:	Colourless to yellow.		
Odour:	no data available		
Melting point/freezing point:	-103.23 °C. Atm. press.:1 013 hPa.		
Boiling point or initial boiling point and boiling range:	106.56 °C. Atm. press.:1 013.25 hPa.		
Flammability:	no data available		
Lower and upper explosion limit/flammability limit:	no data available		
Flash point:	3 °C. Atm. press.:1 013 hPa.		
Auto-ignition temperature:	215 °C. Atm. press.:1 013 hPa.		
Decomposition temperature:	no data available		
pH:	no data available		
Kinematic viscosity:	dynamic viscosity (in mPa s) = 5. Temperature: $20^{\circ}$ C.		
Solubility:	In water: Temperature:20 °C. pH:>= 10.3 - <= 12.1. Remarks:Miscible.		
Partition coefficient n- octanol/water:	log Pow = -1.8. Temperature:25 °C.;log Pow = 1.11 - 1.15. Temperature:25 °C.		

Vapour pressure:	35.7 hPa. Temperature:20 °C. Remarks:Intrapolated.;46.9 hPa. Temperature:25 °C. Remarks:Intrapolated.;152.4 hPa. Temperature:50 °C. Remarks:Intrapolated.
Density and/or relative density:	816.5 kg/m3. Temperature:20 °C.;799.2 kg/m3. Temperature:40 °C.
Relative vapour density:	no data available
Particle characteristics:	no data available

# SECTION 10: Stability and reactivity

#### Reactivity

Highly flammable. Soluble in water.

#### Chemical stability

no data available

#### Possibility of hazardous reactions

1-METHYLPIPERIDINE neutralizes acids in exothermic reactions to form salts plus water. May be incompatible with isocyanates, halogenated organics, peroxides, phenols (acidic), epoxides, anhydrides, and acid halides. Flammable gaseous hydrogen may be generated in combination with strong reducing agents, such as hydrides.

#### Conditions to avoid

no data available

#### Incompatible materials

no data available

#### Hazardous decomposition products

no data available

# SECTION 11: Toxicological information

## Acute toxicity

Oral: LD50 - rat (male/female) - ca. 490 mg/kg bw. Remarks: The original value 0.6 mL/kg was converted to mg/kg body weight using the density of 0.8165 g/cm3.

Inhalation: LCO - rat (male/female) - 15.4 mg/L air.

Dermal: LD50 - rabbit (male/female) - > 1 000 - < 2 000 mg/kg bw.

#### Skin corrosion/irritation

no data available

### Serious eye damage/irritation

no data available

## Respiratory or skin sensitization

no data available

### Germ cell mutagenicity

no data available

#### Carcinogenicity

no data available

## Reproductive toxicity

no data available

## STOT-single exposure

no data available

## STOT-repeated exposure

no data available

#### Aspiration hazard

no data available

## **SECTION 12: Ecological information**

#### Toxicity

Toxicity to fish: LC50 - Danio rerio (previous name: Brachydanio rerio) - 46.4 - 100 mg/L - 96 h. Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna - > 100 mg/L - 48 h. Toxicity to algae: EC50 - Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) - 24.6 mg/L - 72 h. Toxicity to microorganisms: NOEC - activated sludge, domestic - 1 000 mg/L - 30 min. Remarks: Respiration rate.

#### Persistence and degradability

no data available

#### Bioaccumulative potential

no data available

#### Mobility in soil

no data available

### Other adverse effects

no data available

## **SECTION 13: Disposal considerations**

#### Disposal methods

### Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

#### Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

## **SECTION 14: Transport information**

#### **UN Number**

ADR/RID: UN2399 (For reference only, please check.) IMDG: UN2399 (For reference only, please check.) IATA: UN2399 (For reference only, please check.)

### **UN Proper Shipping Name**

ADR/RID: 1-METHYLPIPERIDINE (For reference only, please check.) IMDG: 1-METHYLPIPERIDINE (For reference only, please check.) IATA: 1-METHYLPIPERIDINE (For reference only, please check.)

## Transport hazard class(es)

ADR/RID: 3 (For reference only, please check.) IMDG: 3 (For reference only, please check.) IATA: 3 (For reference only, please check.)

## Packing group, if applicable

ADR/RID: II (For reference only, please check.) IMDG: II (For reference only, please check.) IATA: II (For reference only, please check.)

### Environmental hazards

ADR/RID: No IMDG: No IATA: No

### Special precautions for user

no data available

#### Transport in bulk according to IMO instruments

no data available

## **SECTION 15: Regulatory information**

Safety, health and environmental regulations specific for the product in question European Inventory of Existing Commercial Chemical Substances (EINECS) Listed. EC Inventory Listed. United States Toxic Substances Control Act (TSCA) Inventory Listed. China Catalog of Hazardous chemicals 2015 Listed. New Zealand Inventory of Chemicals (NZIoC) Listed. (PICCS) Listed. Vietnam National Chemical Inventory Listed. IECSC) Listed. Korea Existing Chemicals List (KECL) Not Listed.

## **SECTION 16: Other information**

#### Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

#### References

IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=O&request\_locale=en

CAWEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

ECHA - European Chemicals Agency, website: https://echa.europa.eu/

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