



# Safety Data Sheet

As per Globally Harmonized System (GHS)

**Product Identification:** 3, 5-Dimethylpiperidine      0027A04 Div.03 sds  
3, 5-Dimethylpiperidine

Date of issue: May 13, 2013

SDS Code                    : 0027A04 Div.03 sds 3,5-Dimethylpiperidine

Date of Compilation    : May 04, 2012

Date of Revision        : May 13, 2013

Due Date of Revision: April, 2015

Revision Number        : 04

Version Number         : 0027A04 Div.03 sds 3,5-Dimethylpiperidine

Supersedes date        : April 22, 2013

Supersedes version    : 0027A03 Div.03 sds 3,5-Dimethylpiperidine



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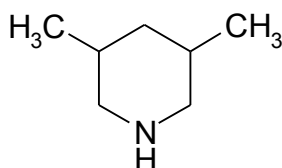
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## SECTION 1.: IDENTIFICATION

**PRODUCT NAME** 3,5-Dimethylpiperidine  
**CAS RN** 35794-11-7  
**EC#** 252-730-6  
**SYNONYMS** Piperidine, 3,5-dimethyl-  
**SYSTEMATIC NAME** 3,5-Dimethylpiperidine; Piperidine, 3,5-dimethyl-  
**MOLECULAR FORMULA** C<sub>7</sub>H<sub>15</sub>N

### STRUCTURAL FORMULA



### FACTORY ADDRESS:

Jubilant life Sciences Ltd, Unit-1  
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SEZ for Chemicals at Plot No-5  
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## Product Uses:

- 3,5-Dimethylpiperidine is used as an intermediate in the manufacturing of active pharmaceutical ingredients..

## SECTION 2:

## HAZARDS IDENTIFICATION

### GHS CLASSIFICATION

Flammable Liquid: category 3

Skin corrosion / irritant: Category 2

Serious eye damage/eye irritant: Category 2A



**Hazard Pictogram:** GHS 02; GHS 07

**Signal Word:** Warning!

## HAZARD AND PRECAUTIONARY STATEMENTS:

### HAZARD STATEMENTS

- H226: Flammable liquid and vapor.
- H315: Causes skin irritation.
- H319: Causes serious eye irritation.

### PRECAUTIONARY STATEMENTS

#### Prevention

- P210: Keep away from heat/sparks/open flames/.../hot surfaces. ... No smoking.
- P233: Keep container tightly closed.
- P240: Ground/bond container and receiving equipment.
- P241: Use explosion-proof electrical/ventilating/lighting/.../ equipment.
- P243: Take precautionary measures against static discharge.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.
- P264: Wash hands and face thoroughly after handling.

#### Response

- P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P370+P378: In case of fire: Use water for extinction.
- P302+P352: IF ON SKIN: Wash with plenty of soap and water.
- P332+P313: If skin irritation occurs: Get medical advice/attention.



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- P362: Take off contaminated clothing and wash before reuse.
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+P313: If eye irritation persists: Get medical advice/attention.

## Storage

- P403+P235: Store in a well-ventilated place. Keep cool.

## Disposal

- P501: Dispose of contents/container to local/regional/national/international regulations.

## SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Sr.No.	Chemical	CAS #	EC#	Purity
1.	3,5-Dimethylpiperidine	35794-11-7	252-730-6	>98%

## SECTION 4: FIRST AID MEASURES

### Key symptoms

### Acute effects:

- 3,5-Dimethylpiperidine is irritating to eyes, respiratory system and skin.

### Chronic effects:

- To the best of our knowledge chronic effects of this compound have not been fully investigated.

### FIRST AID:

- **Eyes:** If in eyes rinse cautiously with water for at least 15 minutes. Remove contact lenses if easy to do so. Continue rinsing. Seek medical attention.
- **Skin:** Immediately take off all contaminated clothing. Wash thoroughly with water for at least 15 minutes. Wash contaminated clothes before reuse. Seek immediate medical attention.
- **Inhalation:** Remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if you feel unwell. Monitor for respiratory distress. Apply artificial respiration if not breathing. Do not use mouth-to-mouth methods if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Toxic vapours may be released on thermal decomposition including nitrogen oxides, carbon monoxide and cyanide.
- **Ingestion:** If swallowed call a poison center if you feel unwell. Rinse mouth. Do NOT induce vomiting by use of emetics. Seek medical attention.



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## SECTION 5 : FIRE-FIGHTING MEASURES

**Flash Point:** 32<sup>o</sup>C

**Flammability:** Flammable liquid and Vapor

### Extinguishing media:

- *Appropriate extinguishing media:* Dry chemical powder, carbon dioxide, and alcohol resistant foam. Do not use water jet or fog (spray) to extinguish. Water can be effective in cooling down the fire-exposed containers and knocking down the vapours. Water jets may be used to flush spills away and dilute the same to non-flammable mixtures fog or alcohol-resistant foam by directing streams to the periphery of the fires to prevent spread.

### Special Protective Equipment and Precautions for Fire Fighter:

- This material is extremely hazardous to health, but fire fighters may enter areas with extreme care. Full protective clothing including a self-contained breathing apparatus, coat, pants, gloves, boots and bands around legs, arms and waist should be provided. No skin surface should be exposed.
- Evacuate the area and fight fires from a safe distance.
- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions or as per locally valid procedures.
- Fire fighters must wear Self Contained Breathing Apparatus (SCBA) and full protective clothing. The chemical is harmful in contact with skin.
- Report any run-off of fire waters contaminated with this chemical as per local and federal procedures applicable.

### Unusual fire and explosion hazard:

- Toxic vapors may be released on thermal decomposition including nitrogen oxides, carbon monoxide and cyanide.
- High vapor concentration may result in an explosion hazard.
- Vapors are heavier than air. May travel considerable distance from source and flashback.



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## SECTION 6 : ACCIDENTAL RELEASE MEASURES

### Minor Spills

- Clean up all spills immediately following relevant Standard Operating Procedures.
- Avoid breathing vapors and contact with skin and eyes.
- Shut off leak source if possible.
- Shut off all possible sources of ignition.
- Wear protective clothing, boots, impervious gloves and safety glasses.
- Wipe up.
- Decontaminate all equipment.
- Use non-sparking tools.

### Major Spill

- Alert Emergency Responders and tell them location and nature of hazard.
- Shut off all possible sources of ignition and increase ventilation.
- Wear protective clothing, full boots, impervious gloves, safety glasses and Self Contained Breathing Apparatus (SCBA), as may be deemed appropriate.
- Clear area of personnel and move upwind.
- Stop leaks if possible.
- Prevent, by any means available, spillage from entering drains or water and watercourses.
- Collect recoverable product into labeled containers for recycling, recovery or disposal.
- Contain spill with sand, earth or vermiculite.
- Spread area with lime or absorbent material, and leave for at least 1 hour before washing.
- Clean up all tools and equipment.
- Inform authorities in event of contamination of any public sewers, drains or water bodies.

## SECTION 7: HANDLING AND STORAGE

### Handling

- Do not breathe vapor or mist.
- Wear protective gloves/clothing and eye/face protection.
- Wash thoroughly after handling.
- Ground and secure containers when dispensing or pouring product.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Launder contaminated clothing before re-use.



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- If on skin or hair, IMMEDIATELY remove all contaminated clothing and rinse/shower with plenty of water.
- Use in a well ventilated place/Use protective clothing commensurate with exposure levels.

## Storage

- Store in a cool, dry and ventilated place keep away from heat, flame and sparks.
- Store in a flame proof area.
- Store away from incompatible materials.
- Keep securely closed when not in use.

## SECTION 8 : EXPOSURE CONTROLS / PERSONAL PROTECTION

### Control parameters

### Exposure Limits Values

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
3,5-Dimethylpiperidine	None listed	None listed	None listed

### Exposure Limits (International):

- Not available.

### Derived No-Effect-Levels (DNEL) / Predicted No-effect-concentration (PNEC)

- DNEL and PNEC data not available.

### Exposure controls

#### Appropriate Engineering Controls:

- Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits. Local ventilation is usually preferred. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Personal Protection:

- Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.
- **Eyes:** Safety goggles/ Chemical Safety glasses and Face shield.



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- **Clothing:** Boots and clothing to prevent contact.
- **Respirator:** Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.
- **Hands:** Wear appropriate protective gloves to prevent skin exposure as describe below.

#### In full contact:

Glove material: butyl rubber  
Layer thickness: 0.70 mm  
Breakthrough Time: >480 Min

#### In Splash Contact:

Glove material: Nitrile Rubber  
Layer thickness: 0.40 mm  
Breakthrough Time: >120 Min

The protective gloves to be used must comply with the specifications of EC directives 89/686/EEC and the resultant standard EN374.

- For emergency situations, wear a positive pressure, pressure-demand, full face piece self-contained breathing apparatus (SCBA) or pressure- demand supplied air respirator with escape SCBA and a fully-encapsulating, chemical resistant suit. (EPA,1998).

#### General Hygiene and general comments:

- Wash hands and face after working with substance.
- Immediately change contaminated clothing.
- Apply skin protective barrier cream.





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## SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

- Information on basic physical and chemical properties.

Sr.No.	Parameter	Typical value
1.	Appearance	Clear, colorless liquid.
2.	Odor	Like amine.
3.	Odor Threshold	Not available
4.	pH	Not Available
5.	Melting point/Freezing point	Not Available
6.	Boiling Point	144°C @760 mmHg
7.	Flash point	32 <sup>0</sup> C
8.	Evaporation rate (n-BuAc=1)	Not available
9.	Flammability	Flammable
10.	Upper/lower flammability or Explosive limits	Not available
11.	Vapor pressure	Not available
12.	Vapor density (air=1)	3.9
13.	Relative density	0.853
14.	Solubility	Slightly soluble in water.
15.	Partition coefficient : n- (Octanol / water)	2.02
16.	Auto-ignition temperature	Not available



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17.	Decomposition temperature	Not available
18.	Viscosity	Not available
19.	Explosive property	Not available
20.	Oxidizing property	No

## SECTION 10: STABILITY AND REACTIVITY

- **Stability:** Stable under normal condition of temperature and pressure.
- **Conditions to avoid:** Keep away from High temperature, mechanical shock, sparks, incompatible materials, ignition sources, excess heat, and moisture.
- **Incompatible chemicals:** Acids, aldehydes, strong oxidizing agents.
- **Hazardous decomposition:** Thermal decomposition may produce carbon monoxide and oxides of nitrogen, carbon dioxide & nitrogen, Hydrogen chloride, hydrogen cyanide and irritating and toxic fumes.
- **Hazardous Polymerization:** Not reported.

## SECTION 11: TOXICOLOGICAL INFORMATION

- a) **Acute toxicity**
- 3,5-Dimethylpiperidine is irritating to eyes, respiratory system and skin.

RTECS # Unlisted

LD50/LC50: No data available.

- b) **Skin corrosion/irritation**
- Causes skin irritation.
- c) **Serious eye damage/irritation**
- Causes eye irritation.
- d) **Respiratory or skin sensitization**
- It causes respiratory irritation.
- e) **Germ cell Mutagenicity**
- No information available.
- f) **Carcinogenicity**
- 3,5-Dimethyl piperidine is a potent carcinogen. **Source:** J Natl Cancer Inst. 1982, Jun; 68(6):989-91. [Journal of the National Cancer Institute]



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- Not listed by NTP, IARC and OSHA.
- Not present on the EU CMR list.
- g) Reproductive toxicity**
  - No data is available.
- h) STOT-single exposure**
  - No data is available.
- i) STOT-repeated exposure**
  - No data available.
- j) Aspiration Hazards**
  - No data available.

## SECTION 12: ECOLOGICAL INFORMATION

### Toxicity

#### Ecotoxicity:

- The Ecotoxicity data is not available.

#### Persistence and degradability:

- It is expected to be biodegradable in aerobic and anaerobic conditions.

#### Bioaccumulative potential:

- BCF = 7.2
- Log Kow = 2.02

Based on the Log Kow and Bioconcentration factor value it is expected to have negligible potential to concentrate in fatty tissue of fish and aquatic organisms relative to its surroundings.

#### Mobility in soil (Predicted):

- Log Koc= 2.389 (estimated). Low sorption.
- Henry's Law Constant: 1.23E-005 atm-m<sup>3</sup>/mole at 25 degrees. It is volatile from aqueous bodies.
- Log Kow= 2.02 (estimated). Low potential to bioaccumulate.

#### Other adverse effects.

##### • Environment Fate:

Based on the environmental modeling, this material has a low potential to get absorbed in the organic matter of soil and is volatile from water bodies. Since this is an estimated result it is recommended that the material should be disposed into the environment. The material should never be disposed into the sewage.

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## SECTION 13: DISPOSAL CONSIDERATIONS

### Waste treatment methods

- Burn in a chemical incinerator equipped with an afterburner and scrubber.
- Dispose of this material in accordance with standard practice for disposal of potentially hazardous materials as required by applicable federal, state or local laws. Note that disposal regulations may also apply to empty containers and equipment rinsates.

## SECTION 14: TRANSPORT INFORMATION

- This substance is considered to be Hazardous for transport by Air/Rail/Road and Sea and thus regulated by IATA/ICAO/ARD/RID/IMO/IMDG.

S.No	Agency	UN Number	Proper Shipping name	Hazard Class	Packing Group
Land Transport	ADR/RIC	UN1993	Flammable liquid, N.O.S. (3,5-dimethylpiperidine)	3	III
Maritime Transport	IMDG	UN1993	Flammable liquid, N.O.S. (3,5-dimethylpiperidine)	3	III
Air Transport	IATA	UN1993	Flammable liquid, N.O.S. (3,5-dimethylpiperidine)	3	III
Hazard Label		Flammable			

### Environmental hazards:

- Marine pollutant: No.



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## SECTION 15: REGULATORY INFORMATION

### European Union Information

**Classification as per Regulation 67/548/EEC:** F: R10; Xi: R36/37/38

F- Flammable.  
Xi – Irritant

### Risk Phrases:

- R10: Flammable.
- R36/37/38: Irritating to eyes, respiratory system and skin.

### Safety Phrases:

- S16: Keep away from sources of ignition -- No smoking.
- S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S 37/39: Wear suitable gloves and eye/face protection.
- S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

### Classification as per CLP Regulation 1272/2008:

- **Hazards Class and Category:** Flamm.Liq.Cat.3, Skin Irrit.cat.2, Eye irrita.Cat.2
- **Hazard Statements:** H226;H315;H319

<b>Chemical Inventory Lists:</b>	<b>Status</b>
<b>TSCA:</b>	Present
<b>EINECS:</b>	252-730-6
<b>Canada(DSL/NDSL):</b>	Listed/NDSL
<b>Japan:</b>	5-679
<b>Korea:</b>	Not listed
<b>Australia:</b>	Not listed
<b>China: IECSC</b>	Not listed



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## SECTION 16: OTHER INFORMATION

### Compilation information of safety data sheet

**Chemical:** 3,5-Dimethylpiperidine

**CAS #:** 35794-11-7

**File Name:** 0027A04 Div.03 sds 3,5-Dimethylpiperidine.

**Revision Number:** 04

**Date of Revision:** May 13, 2013

**Revision Due Date:** April, 2015

#### (a) A key or legend to aberrations and acronyms used in the safety data sheet;

- PBT = Persistent Bio accumulative and Toxic.
- vPvB= Very Persistent and Very Bio accumulative.
- SCBA= Self Contained Breathing Apparatus.
- NIOSH REL= National Institute for Occupational Safety and Health Recommended Exposure Limit.  
OSHA PEL=Occupational Safety and Health Administration Permissible Exposure Limit.
- OELTWA= Occupational Exposure Limit Time Weighted Averages.
- IDLH= Immediately Dangerous to Life or Health.
- UEL= Upper Explosive Limit.
- LEL= Lower Explosive Limit.
- RTECS= Registry of Toxic Effects of Chemical Substances.
- NTP=National Toxicology Program.
- IARC= International Agency for Research on Cancer.
- EPA=Environmental Protection Agency.
- TSCA= Toxic Substances Control Act.
- CERCLA= Comprehensive Environmental Response, Compensation, and Liability Act.
- SARA= Superfund Amendments and Reauthorization Act.
- NFPA= National Fire Protection Association.
- WHIMS= Workplace Hazardous Materials Information System.
- DSL/NDSL= Domestic/Non-Domestic Substances List.
- CSR=Chemical Safety Report.
- BCF = Bio Concentration Factor.
- DNEL = Derived No Effect Level.
- PNEC = Predicted No Effect Concentration.
- TLV = Threshold Limit Value.
- ACGIH = American Conference of Governmental Industrial Hygienists.
- REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals.
- CLP = Classification, Labelling and Packaging.



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- LD / LC = Lethal Doses / Lethal Concentration.
- GHS = Globally Harmonised System.
- ADR = Accord europeen relative au transport international de marchandises.
- IMDG-Code = International Maritime Code for Dangerous Goods.
- EmS = Emergency measures on Sea.
- ICAO = International Civil Aviation Organization.
- IATA/DGR= International Air Transport Association/Dangerous Goods Regulation.

## (b) Key Literature reference and sources for data

### Biographical reference and data sources

- CLP REG (regulation) (EC) no. 1272/2008, last modification by regulation (EC) no. 790/2009
- DIR 67/548/EWG, last modification by DIR 2009/2/EC
- REG (EC) no. 1907/2006, last modification by REG (EC) Nr. 453/2009
- J Natl Cancer Inst. 1982, Jun; 68(6):989-91. [Journal of the National Cancer Institute]

### Internet

- RTECS
- ESIS

### Company's Declaration:

Information contained in this SDS is believed to be correct but no representation, guarantee or warranties of any kind are made as to its accuracy, suitability for a particular application or results to be obtained from them. This SDS shall be used as a guide only. Jubilant Life Sciences Limited makes no warranties expressed or implied of the adequacy of this document for any particular purpose.

(End of Safety Data Sheet)