

Dongying Liangxin Petrochemical Technology Development Limited Company

N-PENTANE
CAS No. 109-66-0

Chemical Safety Data Sheet

SECTION 1 IDENTIFICATION

GHS Product identifier: N-pentane.

Other means of identification: /

Recommended use of the chemical and restrictions on use: Solvent/foaming agent

Supplier's details:

Dongying Liangxin Petrochemical Technology Development Limited Company

Address: No.117 Guangqing Road, Dingzhuang, Guangrao, Dongying City, Shandong Province

Emergency phone number: +86 178 1030 0898

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

Flammable Liquid Category 2, Specific target organ toxicity (single exposure) Category 3 (narcotic effect), Aspiration Hazard Category 1, Hazardous to the aquatic environment, long term hazard Category 2.

GHS Label elements, including precautionary statements



Signal word: Danger

Hazard statement(s): Highly flammable liquid and vapor. May be fatal if swallowed and enters airways. May cause drowsiness or dizziness. Toxic to aquatic life with long lasting effects.

Precautionary statement(s):

Prevention:

Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/ vapors/spray. Use only outdoors or in a well-ventilated area. Avoid release to the environment.

Response:

In case of fire: Use foam, dry chemical powder, carbon dioxide, water spray to extinguish. IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing and wash it before reuse. Rinse skin with water/shower. Collect spillage.

Dongying Liangxin Petrochemical Technology Development Limited Company

N-PENTANE
CAS No. 109-66-0

Storage

Store in well-ventilated place. Keep cool. Store locked up. Keep container tightly closed.

Disposal:

Dispose of contents/container to...

Other hazards which do not result in classification: /

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration%
Pentane	109-66-0	95.5149%
Isopentane	78-78-4	4.4777%

SECTION 4 FIRST AID MEASURES

Description of necessary first aid measures

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

In case of skin contact: Wash off with soap and plenty of water. 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: /

Indication of immediate medical attention and special treatment needed: /.

SECTION 5 FIREFIGHTING MEASURES

Suitable extinguishing media: Foam. Dry chemical powder. Carbon dioxide. Water spray or fog - Large fires only.

Special hazards arising from the chemical: Liquid and vapour are highly flammable. Severe fire hazard when exposed to heat, flame and/or oxidisers. Vapour may travel a considerable distance to source of ignition. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes of carbon monoxide (CO).

Special protective actions for fire-fighters: May be violently or explosively reactive. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water course. If safe, switch off electrical equipment until vapour fire hazard removed. Use water delivered as a fine spray to control fire and cool adjacent area. Avoid spraying water onto liquid pools. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Remove all ignition sources. Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes.

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N-PENTANE
CAS No. 109-66-0

Environmental precautions: Stop leak if safe to do so.

Methods and materials for containment and cleaning up: Water spray or fog may be used to disperse / absorb vapour. Contain spill with sand, earth or vermiculite. Use only spark-free shovels and explosion proof equipment. Collect recoverable product into labelled containers for recycling. Absorb remaining product with sand, earth or vermiculite. Collect solid residues and seal in labelled drums for disposal. Wash area and prevent runoff into drains.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling: Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps. DO NOT enter confined spaces until atmosphere has been checked. Avoid smoking, naked lights or ignition sources. When handling, DO NOT eat, drink or smoke. Vapour may ignite on pumping or pouring due to static electricity. DO NOT use plastic buckets. Earth and secure metal containers when dispensing or pouring product. Use spark-free tools when handling. Avoid contact with incompatible materials. Keep containers securely sealed. Avoid physical damage to containers.

Conditions for safe storage, including any incompatibilities: Store in original containers in approved flame-proof area. No smoking, naked lights, heat or ignition sources. DO NOT store in pits, depressions, basements or areas where vapours may be trapped. Keep containers securely sealed. Store away from incompatible materials in a cool, dry well ventilated area. Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storage and handling recommendations contained within this SDS.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

Source	Material	TWA	STEL
China Occupational Exposure Limits for Hazardous Agents in the Workplace	Pentane	500 mg/m ³	1000 mg/m ³

Appropriate engineering controls: For flammable liquids and flammable gases, local exhaust ventilation or a process enclosure ventilation system may be required. Ventilation equipment should be explosion-resistant.

Personal protective equipment

Eye/face protection: Safety glasses with side shields. Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.

Skin protection: Wear chemical protective gloves, eg. PVC. Wear safety footwear or safety gumboots, eg. Rubber.

Respiratory protection: Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant.

Thermal hazards: /

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

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N-PENTANE

CAS No. 109-66-0

Appearance	Colorless transparent liquid
Odour	/
Odour Threshold	/
pH	/
Melting point/freezing point	/
Initial boiling point and boiling range	36.0°C
Flash point	-49.0°C
Evaporation rate	/
Flammability (solid, gas)	HIGHLY FLAMMABLE.
Upper/lower flammability or explosive limits	1.4-7.8% 66.7 @ 25°C
Vapour pressure	2.5
Vapour density	0.63
Relative density(water = 1)	Immiscible
Water solubility	/
Partition coefficient: noctanol/water	/
Autoignition temperature	/
Decomposition temperature	/
Viscosity	/

SECTION 10 STABILITY AND REACTIVITY

Reactivity: /

Chemical stability: Product is considered stable.

Possibility of hazardous reactions: Hazardous polymerisation will not occur.

Conditions to avoid: Heat, flames and sparks.

Incompatible materials: Strong oxidizing agents.

Hazardous decomposition products: Carbon dioxide, other pyrolysis products typical of burning organic materia

SECTION 11 TOXICOLOGICAL INFORMATION

Information on the likely routes of exposure: Inhaled, Ingestion, skin, eyes.

Symptoms related to the physical, chemical and toxicological characteristics: /

Acute health effects

Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by narcosis, reduced alertness, loss of reflexes, lack of coordination and vertigo. Swallowing of the liquid may cause aspiration of vomit into the lungs with the risk of haemorrhaging, pulmonary oedema, progressing to chemical pneumonitis; serious consequences may result. Skin contact with the material may be harmful; systemic effects may result following absorption. The liquid produces a high level of eye discomfort and is capable of causing pain and severe conjunctivitis.

Chronic health effects: /

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CAS No. 109-66-0

Numerical measures of toxicity (such as acute toxicity estimates): /.

SECTION 12 ECOLOGICAL INFORMATION

Toxicity: /

Persistence and degradability: LOW.

Bioaccumulative potential: LOW (BCF = 2.35)

Mobility in soil: LOW (KOC = 80.77)

Other adverse effects: /

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal methods: Recycle wherever possible. Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified. Dispose of by: burial in a land-fill specifically licenced to accept chemical and / or pharmaceutical wastes or Incineration in a licenced apparatus (after admixture with suitable combustible material). Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

SECTION 14 TRANSPORT INFORMATION

UN number: 1265.

UN proper shipping name: PENTANES, liquid

Transport hazard class(es): 3.

Packaging group: II.

Environmental hazards: /

Special precautions for user: /

SECTION 15 REGULATORY INFORMATION

Regulations: This safety data sheet is in compliance with the following national standards: GB 16483-2008, GB 13690-2009, GB/T 15098-2008, GB 18218-2009, GB 15258-2009, GB 6944-2012, GB 190-2009, GB 191-2009, GB 12268-2008, GA 57-1993, GBZ 2-2007 as well as the following national regulations: Dangerous Goods Transport Administrative Regulation, Dangerous Chemicals Safety Administrative Regulation.

SECTION 16 OTHER INFORMATION

References	"Model Regulations on the Transport of Dangerous Goods" "The Globally Harmonized System of Classification and Labelling of Chemicals"
Form Date	02-Sep-2016

Note 1: As a result of product features without the existence of certain information (such as boiling point does not exist for the solid) in the table with "/" logo.