

# Material Safety Data Sheet

## (N-pentane)

Information in this format is provided as a service to our customers and is intended only for their use. Others may use it at their own discretion and risk. It is subject to revision as additional knowledge and experience are gained. Please return to this website for the most current version.

### 1. PRODUCT AND COMPANY IDENTIFICATION

#### Material Identification

Corporate MSDS Number: N-pentane CAS Number: 109-66-0  
Product Name N-Pentane  
Chemical Family Aliphatic hydrocarbon  
Chemical Formula C<sub>5</sub>H<sub>12</sub>  
Chemical Name pentane  
Product Use Foam blowing agent, Solvent

#### Company Identification

**MANUFACTURER/DISTRIBUTOR:** Cosutin Industrial CO., Limited  
Add: Unit B, 10/F Lee May Building 788-790 Nathan Road, Mongkok, Kowloon, H.K.  
Tel.: +852 21395855 Fax: +852 81673777  
**PHONE NUMBERS Product Information:** +86 136 31481545  
**Transport Emergency:** +86 136 31481545  
**Medical Emergency:** +86 136 31481545

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient Name	CAS No.	Typical Wt. %
n-pentane	109-66-0	100%

### 3. HAZARDS IDENTIFICATION

#### Emergency Overview

DANGER! EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. HARMFUL OR FATAL IF SWALLOWED. HARMFUL IF INHALED. AFFECTS CENTRAL NERVOUS SYSTEM. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT.

Hazard class: 3.1.

Penetration way: Inhalation, Ingestion, Skin absorption.

Health harm: Nonpoisonous liquid, Prolonged skin contact may cause mild irritation.

Environmental hazard: none

Fir and explosion hazard: highly flammable

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## 4. FIRST AID MEASURES

**Inhalation:** Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing.

**Ingestion:** Drink enough lukewarm water. Do not induce vomiting unless directed to do so by medical personnel, Transport victim to an emergency care facility or Call a physician.

**Skin contact:** Removing and isolate contaminated clothing and shoes, flushing the skin with mild, non-abrasive soap and clear water.

**Eye contact:** holding the eyelid(s) open, flushing the contaminated eye(s) with clear water or physiological saline. Transport victim to an emergency care facility or Call a physician.

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## 5. FIRE FIGHTING MEASURES

**Hazard property:** Highly flammable, volatile, Highly flame and explore under high temperature. Upper explosive limit is 1.3-8%.

**Hazardous product of combustion:** CO, CO<sub>2</sub>

**Extinguishing way:** spraying and cooling container, Move containers from fire area if you can do it without risk. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.

**Extinguishing media:** Foam, Dry chemical, CO<sub>2</sub>, Sand-size oil; Use of water spray when fighting fire may be inefficient.

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## 6. ACCIDENTAL RELEASE MEASURES

**Emergency measure:**

Isolate spill or leak area, Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area), cover with dry earth, sand or other non-combustible material, Use non-sparking tools and equipment. Stop leak in a safe and practical manner. Contain and recover liquid when possible. Absorb small spills with an inert material and place in an approved chemical waste container. For large spills, dike up with inert material and transfer into same container. Do not allow to enter into drains or waterways.

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## 7. HANDLING AND STORAGE

**Normal Handling:**

Use with adequate ventilation. Avoid contact with skin, eyes and clothing. Protective Nitrile or Viton rubber gloves and apron are recommended. Use non-sparking tools and equipment. Containers should be bonded and grounded to avoid static spark during transfer. Keep away from heat and all ignition sources. Do not eat, drink or smoke in the work area. Showering after work is recommended.

**Store recommendations:**

Store out of direct sunlight in an area suitable for flammable liquids. Store full or partially full containers in an upright position, tightly closed in a cool (22°C), dry, well ventilated facility

designed for flammable liquids. Store away from incompatible material. Protect containers from physical damage.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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### Engineering Controls:

Provide general or local exhaust ventilation systems to maintain airborne concentrations below exposure levels. Regularly inspect all electrical and mechanical equipment used with or near pentane. Ground and bond metal containers to avoid static sparks.

### Personal Protective Equipment

#### Skin Protection:

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls as appropriate to prevent skin contact. Viton or nitrile rubber offers acceptable chemical resistance. Clothing should be static free.

#### Eye Protection:

Wear safety glasses. Goggles or a full-face shield may be necessary depending on quantity of material and conditions of use.

#### Respiratory Protection:

Not required for properly ventilated areas. If there is potential for inhalation of vapor or mist, use an appropriate respirator. The respirator must be selected based on contamination levels and use conditions found in the workplace, must not exceed the working limits of the respirator.

#### Additional Recommendations:

Provide eyewash station and safety showers convenient to work areas.

**maximum permissible concentration( former soviet union ):** 300mg/m<sup>3</sup>

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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**Appearance:** clear, colorless liquid

**Melting point:** -129.8°C

**Density:** 0.63

**Boiling point:** 36.1°C

**Relative vapor Density:** 2.48

**Saturation vapor pressure:** 53.32kPa (18.5°C)

**Log(Pow):** 3.255

**Flash point:** -40°C

**Flammable / Explosive Limits(%):** LEL: 1.7 / UEL: 9.8

**Ignition temperature°C:** 260

**Solubility:** organic solvent

**Main function:** solvent, artificial ice, anesthetic

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## 10. STABILITY AND REACTIVITY

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**Stability:** stabilization

**Incompatibilities:** vapor-air mixtures are explosive within flammable limits noted above, Strong oxidizing agents

**Caution contact condition:** void leak, wear full protective clothing

**Hazardous Polymerization:** Will not occur

**Decomposition Products:** none

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## 11. TOXICOLOGICAL INFORMATION

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**Chronic Data:** No definitive information available on carcinogenicity, mutagenicity, target organ, or developmental

**Acute Data:** n-Pentane: Dermal LD50=No data available  
LC50>6,106 ppm (4-hr., Rat)  
LC50>6,106 ppm  
Oral LD50>2,000 mg/kg (Rat)  
LD50>2,000 mg/kg

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## 12. ECOLOGICAL INFORMATION

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**Environmental Fate:**

When released into the soil, this material may biodegrade to a moderate extent. When released into the soil, this material is not expected to leach into groundwater. When released into the soil, this material is expected to quickly evaporate. When released into water, this material may biodegrade to a moderate extent. When released to water, this material is expected to quickly evaporate. When released into the water, this material is expected to have a half-life of less than 1 day. This material has an estimated bioconcentration factor (BCF) of less than 100. This material has a log octanol-water partition coefficient of greater than 3.0. This material is not expected to significantly bioaccumulate. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material is expected to have a half-life between 1 and 10 days.

**Environmental Toxicity:** No information found.

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## 13. DISPOSAL CONSIDERATIONS

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**Waste Disposal Method:**

Dispose of non-refillable cylinders in accordance with federal, state and local regulations. Allow gas to vent slowly to atmosphere in an unconfined area or exhaust hood. If the cylinders are the refillable type, return cylinders to supplier with any valve outlet plugs or caps secured and valve protection caps in place. Waste can be burned in an approved incinerator equipped with an afterburner and scrubber.

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## 14. TRANSPORTATION INFORMATION

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Domestic (Land, D.O.T.)

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**Proper Shipping Name:** PENTANES

**Hazard Class:** 31002

**UN/NA:** UN1265

**Packing Group:** II

**Information reported for product/size:** 0.21or24L

International (Water, I.M.O.)

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**Proper Shipping Name:** PENTANES

**Hazard Class:** 3

**UN/NA:** UN1265

**Packing Group:** II

**Information reported for product/size:** 0.21or24L

**Special precautions:** Keep away from heat and all ignition sources, Cylinders should be transported in a secure upright position in a well ventilated truck.

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## 15. REGULATORY INFORMATION

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**CHCCL:** Hazard class: 3.1 low flash point and high flammability

**OSHA:** Process Safety Management: Material is not listed in appendix A of 29 CFR 1910.119 as highly hazardous chemical.

**TSCA:** Material is listed in TSCA inventory.

**SARA:** The threshold planning quantity for material is 10,000 lbs.

**EU NUMBER:** 203-692-4

**NUMBER IN ANNEX 1 OF DIR 67/548:** Material is listed in annex 1.

**EU CLASSIFICATION:** N/Av

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## 16. OTHER INFORMATION

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### Revision Information

Revision Data

19 JUL 2011

Revision Number 3

Supersedes Revision Dated

16-JUL-2011

### Other Precautions:

Protect containers from physical damage. Do not deface cylinders or labels. Cylinders should be refilled by qualified producers of compressed gas. Shipment of a compressed gas cylinder which has not been filled by the owner or with his written consent is a violation of federal law

Abbreviations: CHCCL : Hazardous Chemical Class and Label.

N/Av : Not Available

### Disclaimer:

Information included in this document is given to the best of our knowledge, however, no warranty is made that the information is accurate or complete. We do not accept any responsibility for damages by the use of the document

**Effective Date**

19 JUN 2015

End of MSDS