

Pentane**312-4**

Version 1.1 1

Revision Date 11/01/2017

Print Date 10/31/2018

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Pentane

SDS Number : 000000011432

Product Use Description : Solvent

Manufacturer or supplier's details : CHEM-SUPPLY Pty Ltd
38-50 Bedford St.
Gillman SA 5013, Australia

For more information call : +61 8 8440 2000
(Monday-Friday, 9:00am-5:00pm)

In case of emergency call : Medical: 1-800-498-5701 or +1-303-389-1414
: **Transportation (CHEMTREC): 1-800-424-9300 or +1-703-527-3887**
:
: **CHEMTREC in Australia: +(61)-290372994**
: (24 hours/day, 7 days/week)

2. HAZARDS IDENTIFICATION**Classification of the substance or mixture**

Classification of the substance or mixture : Flammable liquids, Category 2
Specific target organ toxicity - single exposure, Category 3, narcotic effect
Aspiration hazard, Category 1
Chronic aquatic toxicity, Category 2

GHS Label elements, including precautionary statements

Symbol(s) :    

Signal word : Danger

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- Hazard statements : Highly flammable liquid and vapour.
May be fatal if swallowed and enters airways.
May cause drowsiness and dizziness.
Toxic to aquatic life with long lasting effects.
- Precautionary statements : **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.
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.
- Response:**
IF SWALLOWED: Immediately call a POISON CENTER/doctor.
IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a POISON CENTER/doctor if you feel unwell.
Do NOT induce vomiting.
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
Collect spillage.
- Storage:**
Store in a well-ventilated place. Keep container tightly closed.
Keep cool.
Store locked up.
- Disposal:**
Dispose of contents/ container to an approved waste disposal plant.

3. COMPOSITION/INFORMATION ON INGREDIENTS

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Formula : C₅H₁₂
Chemical nature : Substance
CAS-No. : 109-66-0

Hazardous components

Chemical name	CAS-No.	Concentration
Pentane	109-66-0	<= 100%

4. FIRST AID MEASURES

Inhalation : Remove to fresh air.
If not breathing, give artificial respiration.
If breathing is difficult, give oxygen.
Use oxygen as required, provided a qualified operator is present.
Call a physician.

Skin contact : Wash off immediately with plenty of water for at least 15 minutes.
Take off contaminated clothing and shoes immediately.
Wash contaminated clothing before re-use.
Call a physician.

Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Call a physician.

Ingestion : Do not induce vomiting without medical advice.
If a person vomits when lying on his back, place him in the recovery position.
Call a physician immediately.
Never give anything by mouth to an unconscious person.

Notes to physician : Treat symptomatically.

5. FIREFIGHTING MEASURES

Suitable extinguishing media : Foam
Dry chemical
Carbon dioxide (CO₂)
Cool closed containers exposed to fire with water spray.

Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

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Specific hazards during firefighting : Extremely flammable.
Vapours may form explosive mixtures with air.
Vapours are heavier than air and may spread along floors.
Vapors may travel to areas away from work site before igniting/flashback to vapor source.
In case of fire hazardous decomposition products may be produced such as:
Carbon monoxide
Carbon dioxide (CO₂)

Special protective equipment for firefighters : Wear self-contained breathing apparatus and protective suit.
Further information : HAZCHEM CODE: 3YE

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Wear personal protective equipment.
Immediately evacuate personnel to safe areas.
Keep people away from and upwind of spill/leak.
Ensure adequate ventilation.
Remove all sources of ignition.
Do not swallow.
Avoid breathing vapours, mist or gas.
Avoid contact with skin, eyes and clothing.

Environmental precautions : Prevent further leakage or spillage if safe to do so.
Prevent product from entering drains.
Discharge into the environment must be avoided.
Do not flush into surface water or sanitary sewer system.
Do not allow run-off from fire fighting to enter drains or water courses.

Methods for cleaning up : Ventilate the area.
No sparking tools should be used.
Use explosion-proof equipment.
Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

7. HANDLING AND STORAGE**Handling**

Advice on safe handling : Wear personal protective equipment.

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Use only in well-ventilated areas.
 Keep container tightly closed.
 Do not smoke.
 Do not swallow.
 Avoid breathing vapours, mist or gas.
 Avoid contact with skin, eyes and clothing.

Advice on protection against fire and explosion : Keep away from fire, sparks and heated surfaces.
 Take precautionary measures against static discharges.
 Ensure all equipment is electrically grounded before beginning transfer operations.
 Use explosion-proof equipment.
 Keep product and empty container away from heat and sources of ignition.
 No sparking tools should be used.
 No smoking.

Storage

Requirements for storage areas and containers : Store in area designed for storage of flammable liquids.
 Protect from physical damage.
 Keep containers tightly closed in a dry, cool and well-ventilated place.
 Containers which are opened must be carefully resealed and kept upright to prevent leakage.
 Keep away from heat and sources of ignition.
 Keep away from direct sunlight.
 Store away from incompatible substances.
 Container hazardous when empty.
 Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Materials to avoid : Strong oxidizing agents, Strong acids, Amines, Strong bases,
 May attack many plastics, rubbers and coatings.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Components with workplace control parameters**

Components	CAS-No.	Value	Control parameters	Update	Basis
Pentane	109-66-0	TWA : Time Weighted Average (TWA):	600 ppm 1,770 mg/m3	12 2011	AU NOEL: Australia. National Workplace OELs (Workplace Exposure Standards for Airborne Contaminants, Appendix A)
		STEL : Short	750 ppm	12 2011	AU NOEL: Australia.

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		Term Exposure Limit (STEL):	2,210 mg/m ³		National Workplace OELs (Workplace Exposure Standards for Airborne Contaminants, Appendix A)
		TWA : Time Weighted Average (TWA):	600 ppm 1,770 mg/m ³	08 2005	AU OEL: Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)
		STEL : Short Term Exposure Limit (STEL):	750 ppm 2,210 mg/m ³	08 2005	AU OEL: Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)

Engineering measures

Use with local exhaust ventilation.

Prevent vapour buildup by providing adequate ventilation during and after use.

Personal protective equipment

- Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment.
For rescue and maintenance work in storage tanks use self-contained breathing apparatus.
- Hand protection : Solvent-resistant gloves
Gloves must be inspected prior to use.
Replace when worn.
- Eye protection : Do not wear contact lenses.
Wear as appropriate:
Safety glasses with side-shields
If splashes are likely to occur, wear:
Goggles or face shield, giving complete protection to eyes
- Skin and body protection : Wear as appropriate:
Solvent-resistant apron
Flame retardant antistatic protective clothing.
If splashes are likely to occur, wear:
Protective suit

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Hygiene measures	: When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Keep working clothes separately. Remove and wash contaminated clothing before re-use. Do not swallow. Avoid breathing vapours, mist or gas. Avoid contact with skin, eyes and clothing.
Protective measures	: Ensure that eyewash stations and safety showers are close to the workstation location.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: liquid, clear
Colour	: colourless
Odour	: mild hydrocarbon-like
pH	: Note: Not applicable
Melting point/range	: -129.7 °C
Boiling point/boiling range	: 36 °C at 1,013.25 hPa
Flash point	: -56 °F (-49 °C) Method: closed cup
Lower explosion limit	: 1 %(V)
Upper explosion limit	: 7.8 %(V)
Vapour pressure	: 559.95 hPa at 20 °C(68 °F)
Vapour density	: 2.5 Note: (Air = 1.0)

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Density : 0.626 g/cm³ at 20 °C

Water solubility : 0.4 g/l at 20 °C

Ignition temperature : 296 °C

Molecular weight : 72.17 g/mol

10. STABILITY AND REACTIVITY

Chemical stability : Stable under recommended storage conditions.

Possibility of hazardous reactions : Hazardous polymerization does not occur.

Conditions to avoid : Heat, flames and sparks.
Keep away from direct sunlight.Incompatible materials to avoid : Strong oxidizing agents
Strong acids
Amines
Strong bases
May attack many plastics, rubbers and coatings.Hazardous decomposition products : In case of fire hazardous decomposition products may be produced such as:
Carbon monoxide
Carbon dioxide (CO₂)**11. TOXICOLOGICAL INFORMATION**Acute oral toxicity : LD₅₀: > 2,000 mg/kg
Species: Rat

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Acute inhalation toxicity	: LC50: > 20 mg/l Exposure time: 4 h Species: Rat
Acute dermal toxicity	: LD50: 3,000 mg/kg Species: Rabbit
Skin irritation	: Species: Rabbit Result: slight irritation
Eye irritation	: Species: Rabbit Result: slight irritation
Sensitisation	: Maximisation Test Species: Guinea pig Classification: non-sensitizing
Repeated dose toxicity	: Species: Rat Application Route: Inhalation Note: 90-day Inhalation Study No observed adverse effect level 20,000 mg/m3
	: Species: Rat Application Route: Oral Note: Developmental Toxicity No adverse response.
	: Species: Rat Application Route: Inhalation Note: Developmental Toxicity No adverse response. 10,000 ppm
Genotoxicity in vitro Genotoxicity in vivo	: Species: Rat Cell type: Micronucleus Application Route: Inhalation Result: negative

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12. Ecological information**Toxicity**

- Toxicity to fish : LC50: 11.59 mg/l
Exposure time: 96 h
Species: Pimephales promelas (fathead minnow)
- : LC50: 9.87 mg/l
Exposure time: 96 h
Species: Oncorhynchus mykiss (rainbow trout)
- : LC50: 9.99 mg/l
Exposure time: 96 h
Species: Lepomis macrochirus (Bluegill sunfish)

- Toxicity to daphnia and other aquatic invertebrates : LC50: 9.7 mg/l
Exposure time: 48 h
Species: Daphnia pulex (Water flea)

Other adverse effects

- Additional ecological information : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Do not flush into surface water or sanitary sewer system.
The product should not be allowed to enter drains, water courses or the soil.
Not inherently biodegradable.

13. DISPOSAL CONSIDERATIONS

- Product : In accordance with local and national regulations.

14. TRANSPORT INFORMATION

- ADR**
UN/ID No. : UN 1265
Description of the goods : PENTANES

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Class : 3
Packing group : II
Classification Code : F1
Hazard Identification Number : 33
Labels : 3

IATA

UN/ID No. : UN 1265
Description of the goods : Pentanes
Class : 3
Packing group : II
Labels : 3
Packing instruction (cargo aircraft) : 364
Packing instruction (passenger aircraft) : 353
Packing instruction (passenger aircraft) : Y341

IMDG

UN/ID No. : UN 1265
Description of the goods : PENTANES
Class : 3
Packing group : II
Labels : 3
EmS Number 1 : F-E
EmS Number 2 : S-D

Marine pollutant : no

HAZCHEM CODE: 3YE

15. REGULATORY INFORMATION**National regulatory information**

Standard for the Uniform : Schedule 5
Scheduling of Medicines and
Poisons

Other international regulations**Notification status**

US. Toxic Substances : On TSCA Inventory
Control Act

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Australia. Industrial Chemical (Notification and Assessment) Act	: On the inventory, or in compliance with the inventory
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)	: All components of this product are on the Canadian DSL
Japan. Kashin-Hou Law List	: On the inventory, or in compliance with the inventory
Korea. Existing Chemicals Inventory (KECI)	: On the inventory, or in compliance with the inventory
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	: On the inventory, or in compliance with the inventory
China. Inventory of Existing Chemical Substances	: On the inventory, or in compliance with the inventory
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand	: On the inventory, or in compliance with the inventory

16. OTHER INFORMATION**Sources of key data used to compile the Safety Data Sheet:**

1. National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC:2011(2003)]
2. Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(1999)]
3. List of Designated Hazardous Substances [NOHSC:10005(1999)]
4. Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)]
5. Australian Dangerous Goods Code, No. 6 [National Road Transport Commission]
6. Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP), No. 19 [NDPSC: 2004]
7. National Code of Practice for the Labelling of Workplace Substances [NOHSC:2012(1994)]

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a

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guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Final determination of suitability of any material is the sole responsibility of the user.

This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

Prepared by:
Honeywell Performance Materials and Technologies Product Stewardship Group

End of Safety Data Sheet