RCI Labscan Limited

SAFETY DATA SHEET

According to Globally Harmonized System of Classification and Labelling of Chemicals (GHS)
Revision Date Jun 01, 2022

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name	n-PENTANE 99%
CAS-No.	109-66-0
Product code	AR1146, GP1146, IR1146, LC1146, LV1146, PC1146, RP1146

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Chemical for analysis and production

1.3 Details of the supplier of the safety data sheet

Company	ChemSupply Australia Pty Ltd 38 - 50 Bedford Street, Gillman SA 5013 Australia
Telephone number	(08) 8440 2000
Fax number	(08) 8440 2001

1.4 Emergency Telephone Number

Emergency phone	
Monday - Friday 8:30am - 5:00pm ACST	(08) 8440 2000
After hours: CHEMCALL	1800127406 / +6449179888

1.5 Manufacturer

Company	RCI LABSCAN LIMITED. 24 Rama 1 Road, Pathumwan, Bangkok 10330 Thailand

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to WHS Regulations (Australia)

Flammable liquids (Category 2), H225
Specific target organ toxicity - single exposure (Category 3), H336
Aspiration hazard (Category 1), H304
Chronic aquatic toxicity (Category 2), H411
For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements

Pictogram

Signal word Danger

Hazard statement(s)

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Precautionary statement(s)

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.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P261	Avoid breathing fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P316	IF SWALLOWED: Get emergency medical help immediately.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P319	Get medical help if you feel unwell.
P331	Do NOT induce vomiting.
P391	Collect spillage.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

2.3 Other hazards None

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms Amyl hydride, n- Amyl hydride, pentane, Diethyl methane, 1,3-Dimethyl propane.

CAS-No	EC-No	EC-Index-No	Formula	Molecular Weight	Weight %
109-66-0	203-692-4	601-006-00-1	$CH_3(CH_2)_3CH_3$	72.15 g/mol	>99

Hazardous ingredients according to WHS Regulations (Australia)

Component	Concentration	Classification
n-Pentane		
CAS-No 109-66-0 EC-No 203-692-4 EC-Index-No 601-006-00-1	>99%	Flammable liquids (Category 2), H225 Specific target organ toxicity - single exposure (Category 3), H336 Aspiration hazard (Category 1), H304 Chronic aquatic toxicity (Category 2), H411

For the full text of the H-Statements mentioned in this Section, see Section 16

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance.
Inhalation	Move to fresh air in case of accidental inhalation of vapors. Keep patient warm. In case of shortness of breath, give oxygen. Apply artificial respiration only if patient is not breathing or under medical supervision. No artificial aspiration mouth to mouth or mouth to nose. Use suitable instruments/apparatus.
Skin contact	Remove contaminated clothing and wash affected skin with soap and water. If signs of poisoning appear, treat as for inhalation. Wash contaminated clothing before reuse. Contaminated combustible material, e.g. clothing ignites more readily and burns fiercely.
Eye contact	If the substance has got into the eyes, immediately wash out with plenty of water at least 15 minutes. Obtain medical attention.

Ingestion	Rinse mouth. Do not induce vomiting. Keep patient warm. In case of shortness of breath, give oxygen. Apply artificial respiration only if patient is not breathing or under medical supervision. No artificial aspiration mouth to mouth or mouth to nose. Use suitable instruments/apparatus. Obtain medical attention. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in section 2.2 and section 11

4.3 Indication of any immediate medical attention and special treatment needed

After swallowing, avoid vomiting. Risk of aspiration. Keep airways free. Subsequently administer; Activate charcoal 20-40 g in 10% slurry. No milk, no digestible oils. In case of spontaneous vomiting: Risk of aspiration. Pulmonary failure possible.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Extinguish with carbon dioxide, dry chemical or foam. In the event of fire, cool tanks with water spray.

5.2 Special hazards arising from the substance or mixture

Vapors may form explosive mixture with air at ambient temperature. Flash back possible over considerable distance.

5.3 Advice for firefighters

Wear self-contained breathing apparatus and protective suit.

5.4 Hazchem Code

3YE

5.5 Further information

Standard procedure for chemical fires. Take measures to prevent electrostatic charging. Prevent firefighting water from entering surface water or groundwater.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas. Do not breathe vapors or spray mist. Remove all sources of ignition. Wear a positive-pressure supplied-air respirator, flame retardant antistatic protective clothing. Shut off leaks if without risk. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Contain or absorb leaking liquid with sand or earth, consults an expert. Prevent liquid entering sewers, basements and workpits. If substance has entered a water course or sewer or contaminated soil, advise police.

6.3 Methods and materials for containment and cleaning up

Spillage: May react with combustible substances creating fire or explosion hazard and formation of toxic fumes. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Soak up with inert absorbent material (e.g. sand, silica gel or chemical absorbent pads). Prevent liquid entering sewers, basements and workpits; vapor may create explosive atmosphere. Transfer to covered steel drums. Dispose of promptly.

6.4 Reference to other sections

For disposal see **Section 13**.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Keep container tightly closed. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use only in area provided with appropriate exhaust ventilation. Do not breathe vapors or spray mist. Avoid contact with skin, eyes and clothing. Do not empty into drains.

7.2 Conditions for safe storage, including any incompatibilities

Keep tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Keep at +15 °C to +25 °C. Keep out of direct sunlight and away from incompatible materials. Store in original container. Electrical equipment should be protected to the appropriate standard.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Exposure limit (Safe Work Australia)

TWA:	600 ppm (1770 mg/m^3)
STEL:	750 ppm (2210 mg/m^3)

8.2 Exposure controls

Appropriate engineering controls

The product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Ventilation hoods and fans required when working with organic solvents or in hot melt applications.

Individual protection measures (Personal protective equipment, PPE)

Eye/face protection

Goggles giving complete protection to eyes.

Skin protection

Chemical resistant apron / flame retardant antistatic protective clothing, heavy duty work shoes.
Handle with gloves

- Full contact wears gloves from nitrile rubber material.
- Splash contact wears gloves from nitrile rubber material.

The select protective gloves have to satisfy the specifications of EU Directive 89/686 EEC and standard EN 374 derived from it.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. Required when vapor/aerosols are generated filter AX (EN371).

Environmental exposure controls

Prevent liquid entering sewers, basements and workpits.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: Form	Liquid
: Color	Colorless
Odour	Benzene like
Odour Threshold	Not Available
pH	Not Available
Melting point/range	-129.7 °C

Boiling point/range	36.1 °C at 1013 hPa
Flash point	-48 ºC (closed cup)
Evaporation rate	Not Available
Flammability (solid, gas)	Not Available
Explosion limits: lower	1.4 %(V)
upper	8 %(V)
Vapour Pressure	570 hPa at 20ºC
Relative vapour density	2.49
Density	0.630 g/ml at 20ºC
Water solubility	0.36 g/l at 20ºC
Partition coefficient (n-octanol/water)	log Pow: 3.39
Auto-Ignition temperature	285 ºC
Decomposition Temperature	Not Available
Viscosity	Not Available
Explosive properties	Not Explosive
Oxidizing properties	The substance or mixture is not classified as oxidizing

SECTION 10: Stability and reactivity

10.1 Reactivity

Highly flammable.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Risk of explosion in contact with strong oxidizing agents, halogens, nitric acid conc..

10.4 Conditions to avoid

Warming.

10.5 Incompatible materials

Nitric acid conc., strong oxidizing agents, halogens. Unsuitable working materials: Various plastics, rubber

10.6 Hazardous decomposition products

Carbon monoxides, Carbon dioxides, (Hazardous decomposition products from under fire condition).

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LC_{50} (inhalation, rat): 364 mg/l/4h.

LD_{50} (oral, rat): >2000 mg/kg.

Acute oral toxicity

Symptoms: narcosis, spasms, respiratory arrest, mucosal irritations.

Acute inhalation toxicity

Symptoms: mucosal irritations, drowsiness, narcosis. Inhalation may lead to the formation of oedemas in the respiratory tract.

Skin corrosion/irritation

Irritations. Degreasing effect on the skin, possibly followed by secondary inflammation.

Serious eye damage/eye irritation
Slight irritations.

Respiratory or skin sensitization
Not Available

Germ cell mutagenicity
Bacterial mutagenicity Escherichia is negative.

Carcinogenicity
Not Available

Reproductive toxicity
Not Available

Teratogenicity
Not Available

Specific target organ toxicity (STOT) - single exposure
May cause drowsiness or dizziness.

Specific target organ toxicity (STOT) - repeated exposure
Not Available

Aspiration hazard
May cause pneumonia or chemical pneumonitis

Further information
After accidental swallowing the substance may pose a risk of aspiration. Passage into the lung (vomiting) can result in a condition resembling pneumonia (chemical pneumonitis). Damage of lungs.
The product should be handled with the care usual when dealing with chemicals.

SECTION 12: Ecological information

12.1 Toxicity
Not Available

12.2 Persistence and degradability

Biodegradability	Not Available

12.3 Bioaccumulative potential

Partition coefficient (n-octanol/water)	log Pow: 3.99 (calculated). Bioaccumulation potential is to be expected (log Po/w >3)

12.4 Mobility in soil
Not Available

12.5 Other adverse effects
Biological effects: toxic for aquatic organisms. May cause long term adverse effects in the aquatic environment. Endangers drinking water supplies if allowed to enter soil or water.
Do not allow to enter waters, waste water or soil.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

There are no uniform EC Regulations for the disposal of chemicals or residues. Chemical residues generally count as special waste. The disposal of the latter is regulated in the EC member countries through corresponding law and regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose of special waste or burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations.

Contaminated packaging

Disposal in compliance with official regulations. Handle contaminated packaging as hazardous waste in the same way of the substance itself. If not officially specified differently, non-contaminated packaging may be treated like household waste or recycled.

SECTION 14: Transport information

Land Transport (ADR/RID)

UN Number	1265
UN proper shipping name	PENTANES
Transport hazard class(es)	3
Hazchem Code	3YE
Packing group	II
Environmental hazards	Yes
Special precautions for user	Yes

Sea transport (IMDG)

UN Number	1265
UN proper shipping name	PENTANES
Transport hazard class(es)	3
Packing group	II
Marine pollutant	Yes
Special precautions for user	Yes
EmS	F-E S-D

Air transport (IATA)

UN Number	1265
UN proper shipping name	PENTANES
Transport hazard class(es)	3
Packing group	II
Environmental hazards	Yes
Special precautions for user	No

River transport (AND/ADNR)

(Not examined)

SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulatory Information	Listed in the Australian Inventory of Chemical Substances (AICS).
Poisons Schedule	S5

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Recommended restrictions

Take notice of labels and safety data sheets for the working. Chemicals Take necessary action to avoid static electricity discharge.

Reference

Globally Harmonized System of Classification and Labelling of Chemicals (GHS).
Labelling according to EC Directives 67/548 EEC and Regulation (EC) No 1272/2008.
Transportation information according to Recommendations on the Transport of Dangerous Goods, Model Regulations. Twelfth revised edition. United Nations.
Institute for Occupational Safety and Health of the German Social Accident Insurance in Sankt Augustin/Germany, Source: IFA for Databases on hazardous substances (GESTIS).

Further information

ChemSupply Australia Pty Ltd Ph. (08) 8440 2000.

Revision Date

01/06/2022