Safety Data Sheet

SECTION 1: Identification of the Substance/Mixture and of the Company.

1.1 Product Identification:

Product Name : n-Pentane

CAS Number : 7791-18-6

Molecular Formula : C5H12

EC Number : 203-692-4

CAT Number : KEMICAS - relevant catalogue numbers

Reach Number : A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 907/2006, the annual tonnage does not require a registration, or the registration is envisaged for a later registration deadline.

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

Application of the Substance : Laboratory chemicals, not for food and drug

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier : KEMICAS

Email : info@kemicas.com

1.4: Emergency Telephone number

Emergency Number : +31(0)853012877

Section 2: Hazards Identification

2.1 Classification of the substance or mixture according to Regulation (EG 1272/2008)

Flammable liquid, Category 2, H225

Aspiration hazard, Category 1, H304

Specific target organ toxicity - single exposure, Category 3, H336

Hazardous to the aquatic environment — Chronic Hazard, Category 2 H411

For the full text of H-sentences mentioned, see Section 16

For the full text of R-sentences mentioned, see Section 16

2.2 GHS Label

GHS-Labelling Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms

Signal word:

DANGER

Hazard Statements:

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.

Precautionary Statements:

P273 Avoid release to the environment.

P331 Do NOT induce vomiting.

P501 Dispose of contents/ container to an approved waste disposal plant.

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

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

Hazard Pictograms:

Signal word:

DANGER

Section 3: Composition / Information on Ingredients.

3.1 Substance

Component	CAS-No.	Concentration	Classification REGULATION (EC) No (1272/2008)
n-Pentane	109-66-0	C5H12 According to the grade	Flam. Liq. 2, H225 Asp. Tox. 1, H304 STOT SE 3, H336 Aquatic Chronic 2, H411

Section 4: First Aid Measures

4.1 Description of first aid measures

General Advice

First-aid personnel: ensure self-protection!

After inhalation: Fresh air. If breathing stops immediately apply mechanical ventilation, if necessary oxygen mask. Immediately call in physician.

After contact with skin: Wash off with plenty of water. Remove contaminated clothing.

After contact with eyes: Rinse out with plenty of water for at least 10 minutes with the eyelid held wide open. Immediately call in physician

After ingestion: Never give anything by mouth to an unconscious person. Make the victim drink plenty of water, do not induce vomiting. Call in physician.

4.2 Most Important symptoms and effects, both acute and delayed

Refer to labelling (see section 2.2) and/or in section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

Section 5: Firefighting Measures.

5.1 Extinguishing media

Suitable Extinguishing Media

Quick-acting ABC powder extinguisher. Class B foam extinguisher.

Unsuitable Extinguishing Media

Do not use water. Use carbon dioxide or dry chemical.

5.2 Special hazards arising from substance or mixture

Combustible. Vapours heavier than air. Forms explosive mixtures with air at ambient temperatures.

Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice for firefighters

Do not stay in dangerous zone without self-contained breathing apparatus. In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

5.4 Further information

No data available

Section 6: Accidental Release Measures.

6.1 Personal precautions, protective equipment and emergency procedures

Do not inhale vapours/aerosols. Avoid substance contact. Ensure supply of fresh air in enclosed rooms.

For personal protection, see section 8.

6.2 Environmental precautions

Do not allow to enter sewerage system.

6.3 Methods and materials for containment and cleaning up

Absorb on vermiculite, sand or a pillow from Chemical Spill Centre.

6.4 Reference to other sections

No information available

Section 7: Handling and Storage.

7.1 Precautions for safe handling

Keep away from sources of ignition. Take measures to prevent electrostatic charging. Work under hood. Do not inhale substance. For precautions, refer to section 2.2

7.2 Conditions for safe storage, including any incompatibilities

Closed in a well-ventilated place. Recommended storage temperature see product label.

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

No data available

8.2 Exposure controls

Engineering Measures

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.

Individual Protection Measures

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

working with substance. Under no circumstances eat or drink at workplace. Work under hood. Do not inhale substance.

Respiratory Protections

Required when vapours/aerosols are generated. The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Eye Protection

Required. Wear goggles.

Hand Protection

Required. Wear gloves

Body Protection

Required.

Environmental Exposure Controls

Do not allow to enter sewerage system, risk of explosion!

Section 9: Physical and Chemical Properties.

9.1 Information on basis physical

Appearance and Changes in Physical State

Form: Liquid

Color: Colorless

Odour: Almost Odourless

Melting point: -130 °C

Boiling point: 36 °C

Flash point: -40 °C

Ignition temperature: 260 °C

Mol. Weight: 72.15 g/mol

Density: 626 kg/m³

pH value: -

Solubility in water: Insoluble

Relative density of saturated gas/air mixture : 1.8

Explosion limits: lower 1.4 vol% / upper 8.0 vol%

Further information: explosion limits – l

9.2 Other data

No further relevant information available.

Section 10: Stability and Reactivity.

10.1 Reactivity

See section 10.3

10.2 Chemical stability

No further relevant information available.

10.3 Possibility of hazardous reactions

Exposable with air in a vaporous/gaseous state when heated

10.4 Conditions to avoid

No further relevant information available.

10.5 Incompatible materials

No further relevant information available.

10.6 Hazardous decomposition products

No further relevant information available.

Section 11: Toxicological Information.

11.1 Information on toxicological effects

Acute oral toxicity	: LD50 orl. rat >2000 mg/kg
Acute inhalation toxicity	: No further relevant information available.
Acute dermal toxicity	: No further relevant information available.
Skin irritation	: No further relevant information available.
Eye irritation	: No further relevant information available
Sensitisation	: No further relevant information available.
Germ cell mutagenicity	: No further relevant information available.
Carcinogenicity	: No further relevant information available.
Reproductive toxicity	: No further relevant information available.
Teratogenicity	: No further relevant information available
Specific target organ toxicity - single exposure	: No further relevant information available.

Specific target organ toxicity - repeated exposure : No further relevant information available.

Aspiration hazard : No further relevant information available.

11.2 Further information

Handle in accordance with good industrial hygiene and safety practice.

Section 12: Ecological Information.

12.1 Toxicity

No further relevant information available.

12.2 Persistence and degradability

No further relevant information available.

12.3 Bio accumulative potential

No further relevant information available.

12.4 Mobility in soil

No further relevant information available.

12.5 Results of PBT and vPvB assessment

No further relevant information available.

12.6 Other adverse effects

Do not allow to enter waters, wastewater, or soil!

Section 13: Disposal Considerations.

Product : Chemicals must be disposed of in compliance with the respective national regulations.

Packaging : KEMICAS product packaging must be disposed of in compliance with the country-specific regulations or must be passed to a packaging return system.

Section 14: Transport Information.

Land Transport (ADR/RID)

14.1 UN number	: UN 1265
14.2 Proper shipping name	: Pentanes
14.3 Class	: 3
14.4 Packing	: Group II
14.5 Environmentally hazardous	: Yes
14.6 Special precautions for user	: No

14.7 Tunnel restriction code : (D/E)

Inland waterway transport (ADN)

Not relevant

Air Transport (IATA)

14.1 UN number : UN 1236

14.2 Proper shipping name : Pentanes

14.3 Class : 3

14.4 Packing : Group II

14.5 Environmentally hazardous : Yes

14.6 Special precautions for user : No

Sea Transport (IMDG)

14.1 UN number : UN 1265

14.2 Proper shipping name : Pentanes

14.3 Class : 3

14.4 Packing : Group II

14.5 Environmentally hazardous : Yes

14.6 Special precautions for user : No

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not relevant

Section 15: Regulatory Information.

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

For this product, an assessment was not carry out.

15.2 Chemical Safety Assessment

For this product, an assessment was not carry out.

Section 16: Other Information.

The information and recommendations in this SDS are to the best of KEMICAS knowledge, information and belief. KEMICAS cannot be held responsible for any damage resulting from any possible error in this publication.

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

Aquatic Chronic 2 Hazardous to the aquatic environment — Chronic Hazard, Category 2

Asp. Tox. 1 Aspiration hazard, Category 1

Flam. Liq. 2	Flammable liquids, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation, Narcosis
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.

Exposure Scenario 1 (Industrial Use)

1. Industrial use Reagent for analysis, (Chemical production)

Sectors of end-use

SU 3 : Industrial uses: Uses of substances as such or in preparations at industrial sites

SU 9 : Manufacture of fine chemicals

SU10 : Formulation [mixing] of preparations and/ or re-packaging (excluding alloys)

Chemical product category

PC19 : Removed from PC list and relocated in the technical function list (Table R.12- 15)24.

PC21 : Laboratory chemicals

Process categories

PROC 1 : Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.

PROC 2 : Chemical production or refinery in closed

PROC 2 : Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

PROC 3 : Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition

PROC 4 : Chemical production where opportunity for exposure arises

PROC 5 Mixing or blending in batch processes

PROC 8a : Transfer of substance or mixture (charging and discharging) at non- dedicated facilities 26

PROC 8b : Transfer of substance or mixture (charging and discharging) at dedicated facilities26

PROC 9 : Transfer of substance or mixture into small containers (dedicated filling line, weighing)

PROC10 : Roller application or brushing

PROC15 : Use as laboratory reagent

Environmental Release Categories

ERC 1 : Manufacture of the substance

ERC 2 : Formulation into mixture

ERC 4 : Use of non-reactive processing aid at industrial site (no inclusion into or onto article)

ERC 6a : Use of intermediate

ERC 6b : Use of reactive processing aid at industrial site (no inclusion into or onto article)

Exposure Scenario 2 (Professional Use)

1. Industrial use Reagent for analysis, (Chemical production)

Sectors of end-use

SU22 : Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Chemical product category

PC21 : Laboratory chemicals

Process categories

PROC15 : Use as laboratory reagent

Environmental Release Categories

ERC 2 : Formulation into mixture

ERC 6a : Use of intermediate

ERC 6b : Use of reactive processing aid at industrial site (no inclusion into or onto article)

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