

Heptane

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
Issue date: 10/13/2025 Revision date: 10/14/2025 Version: 1.0

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

1.1. Product identifier

Product form : Liquid
Trade name : Heptane

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Usually used as solvent

1.2.2. Uses advised against

Restrictions on use : No information available

1.3. Details of the supplier, importer and OR of the safety data sheet

Supplier

Dongying Junyuan Petrochemical Technology Development Limited Company
No. 117 Guangqing Road, Dingzhuang, Guangrao, Dongying, Shandong, China
T: +86-138 0129 1064 Email: info@junyuanpetroleumgroup.com

1.4. Emergency telephone number

Emergency number : +86-178 1030 0898

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 2
Skin Irrit. 2
Asp. Tox. 1
STOT SE 3
Aquatic Acute 1
Aquatic Chronic 1

Adverse physicochemical, human health and environmental effects

No information available.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



Signal word (CLP) : Warning
Hazard statements (CLP) : H225 Highly flammable liquid and vapour
H315 Causes skin irritation
H304 May be fatal if swallowed and enters airways
H336 May cause drowsiness or dizziness
H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long lasting effects

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Precautionary statements (CLP)	: P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 Keep container tightly closed. P235 Keep cool. P240 Ground and bond container and receiving equipment. P241 Use explosion-proof equipment. P242 Use non-sparking tools. P243 Take action to prevent static discharges. P280 Wear protective gloves/protective clothing/eye protection/face protection. P264 Wash thoroughly after handling. P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P271 Use only outdoors or in a well-ventilated area. P273 Avoid release to the environment. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. P370 + P378 In case of fire: Use foam, dry powder and carbon dioxide to extinguish. P403 + P235 Store in a well-ventilated place. Keep cool. P302 + P352 IF ON SKIN: Wash with plenty of water. P332 + P313 If skin irritation occurs: Get medical advice/attention. P362 + P364 Take off contaminated clothing and wash it before reuse. P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor. P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P391 Collect spillage. P312 Call a POISON CENTRE/doctor, if you feel unwell. P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P331 Do NOT induce vomiting. P405 Store locked up. P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
EUH-statements	: None.

2.3. Other hazards

Criteria for the assessment of substances as PBT and vPvB in Annex XIII to Regulation EC No 1907/2006 (REACH): the substance does not meet the criteria for classification as PBT and vPvB substances. The substance is not listed in Annex XIV to Regulation EC No 1907/2006 (REACH) or in the candidate list of SVHC. It has no properties affecting the endocrine system.

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Hazard statements	Specific Concentration limits, M-Factors, Acute Toxicity Estimates (ATE)
Heptane	CAS#142-82-5 EC#205-563-8	97%	Flam. Liq. 2 Skin Irrit. 2 Asp. Tox. 1 STOT SE 3 Aquatic Acute 1 Aquatic Chronic 1	H225 Highly flammable liquid and vapour H315 Causes skin irritation H304 May be fatal if swallowed and enters airways H336 May cause drowsiness or dizziness H400 Very toxic to aquatic life H410 Very toxic to aquatic life with long lasting effects	-
Other hydrocarbons	/	3%	-	-	-

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: First aid is usually required. Please show this SDS to the physician arriving at the scene.
First-aid measures after inhalation	: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
First-aid measures after skin contact	: Remove contaminated clothing and rinse with plenty of running water.
First-aid measures after eye contact	: Rinse thoroughly with plenty of running water for at least 15 minutes and consult a physician.
First-aid measures after ingestion	: Rinse mouth with water. Consult a physician.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects : No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

: Use foam, dry powder, carbon dioxide, etc.

Unsuitable extinguishing media

: No information available.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire

: Liquid and vapour are highly flammable. May explode and burn in high temperature and fire and release toxic fumes.

5.3. Advice for firefighters

Precautionary measures fire

: Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Firefighting instructions

: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment

: Remove persons to safety. Ventilate affected area. Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. Avoid inhaling sprayed product. Take off immediately all contaminated clothing and wash it before reuse.

6.1.2. For emergency responders

Protective equipment

: It is recommended that emergency personnel wear protective masks and fire protective overalls. Do not touch the spill directly. Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2. Environmental precautions

Isolate contaminated areas and restrict access.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up

: Small amount of leakage: adsorption with sand or other inert materials. Do not allow products to enter restricted areas such as sewers. A large amount of leakage: building a dike or digging a pit to contain. Transfer to a tank truck or special collector with an explosion-proof pump and transport to a waste disposal site for disposal.

Other information

: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling

: There should be sufficient local exhaust in workplace. Operators should be trained and strictly follow the operating procedures. Operators are advised to wear protective masks, normal protective clothing and rubber gloves. Operators should load and unload lightly during handling to prevent damage to the package. There should be leakage treatment equipment in workplace. There may be harmful residues in empty containers.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

: Store in a cool, dry, well-ventilated warehouse. Keep away from fire and heat. Protect from direct sunlight. The package should be sealed and not exposed to moisture. It should be stored separately from oxidants, flammable materials, etc., and should not be mixed. The storage area should be provided with suitable materials to contain spills.

7.3. Specific end use(s)

No additional information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Component	Country	Occupational exposure limits
Heptane	USA	OSHA: PEL-TWA = 500 ppm (2000 mg/m ³) (8-hour) NIOSH: REL-TWA = 85 ppm (350 mg/m ³) (10-hour) ACGIH: TLV-TWA = 400 ppm (8-hour) CAL/OSHA: PEL-TWA = 400 ppm (1600 mg/m ³) (8-hour)
	China	PC-TWA = 500 mg/m ³ PC-STEL = 1000 mg/m ³

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	UK	Long-term exposure limit = 500 ppm or 2085 mg/m ³ (8-hr TWA reference period)
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8.2. Exposure controls

Appropriate engineering controls:

Close strictly and provide sufficient local exhaust.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Hand protection:
The suitability for a specific workplace should be discussed with the producers of the protective gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
Eye protection:
Wear a protective mask.
Skin and body protection:
Wear normal protective clothing.
Respiratory protection:
Air respirators should be worn during emergency rescue or evacuation.

Personal protective equipment symbol(s):



Thermal hazard protection:

No information available.

Environmental exposure controls:

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Colorless transparent liquid.
Colour	: Colorless
Odour	: No information available
Odour threshold	: No information available
pH	: No information available
Relative evaporation rate (butylacetate=1)	: No information available
Melting/Freezing point	: -91 °C
Boiling point	: 98 °C
Flash point	: ≤ 18.0 °C
Auto-ignition temperature	: 215 °C
Decomposition temperature	: No information available
Flammability	: Highly flammable.
Vapour pressure	: 6.36 (25 °C)
Relative vapour density at 20 °C	: No information available
Relative density	: 0.7
Density	: No information available
Solubility	: Insoluble in water
Log Pow	: 4.66
Viscosity	: 0.641 mm ² /s (20 °C)
Explosive properties	: No information available
Oxidising properties	: No information available
Explosive limits	: 1.1-6.7

9.2. Other information

No information available

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SECTION 10: Stability and reactivity

10.1. Reactivity

The substance is stable under normal pressure and temperature.

10.2. Chemical stability

This material is stable in normal temperature

10.3. Possibility of hazardous reactions

No hazardous reactions known under intended use.

10.4. Conditions to avoid

Spark, high temperature and static electricity

10.5. Incompatible materials

Flammable materials and oxidizers.

10.6. Hazardous decomposition products

Oxycarbides, etc.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: LD50 (rat) > 5000 mg/kg bw
Acute toxicity (dermal)	: LD50 (rabbit) > 5000 mg/kg bw (read-across)
Acute toxicity (inhalation)	: LC50 (rat) > 29.9 mg/L air
Skin corrosion/irritation	: Irritating (Skin Irrit. 2)
Serious eye damage/irritation	: Not irritating
Respiratory or skin sensitisation	: Not sensitising
Germ cell mutagenicity	: No information available
Carcinogenicity	: No information available
Reproductive toxicity	: Inhalation NOAEC (Reproductive toxicity) = 31680 mg/m ³ air (read-across)
STOT-single exposure	: May cause drowsiness or dizziness (STOT SE 3).
STOT-repeated exposure	: No information available
Aspiration hazard	: Aspiration hazard, Aspiration may cause pulmonary edema and pneumonitis. Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. (Asp. Tox. 1)

11.2. Information on other hazards

Ingestion can cause symptoms such as nausea, vomiting and abdominal pain.

SECTION 12: Ecological information

12.1. Toxicity

Algae/aquatic plants EC50	: 1.323mg/L 96h
Fish LC50	: 0.854mg/L 48h
Crustace EC50	: 0.64mg/L 96h

12.2. Persistence and degradability

Heptane: Low.

12.3. Bioaccumulative potential

Heptane: High (LogKOW = 4.66).

12.4. Mobility in soil

Heptane: Low (KOC = 274.7).

12.5. Results of PBT and vPvB assessment

No information available

12.6. Endocrine disrupting properties

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7. Other adverse effects

Other adverse effects : No information available.

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods

: This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

Product/Packaging disposal recommendations

: Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself. Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations.

SECTION 14: Transport information

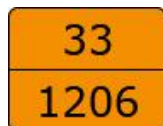
In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
UN 1206	UN 1206	UN 1206	UN 1206	UN 1206
14.2. UN proper shipping name				
HEPTANES	HEPTANES	HEPTANES	HEPTANES	HEPTANES
14.3. Transport hazard class(es)				
6.1	6.1	6.1	6.1	6.1
				
14.4. Packing group				
II	II	II	II	II
14.5. Environmental hazards				
Environmentally hazardous: No	Marine pollutant: P EmS No. (Fire): F-E EmS No. (Spillage): S-D	Environmentally hazardous: No	Environmentally hazardous: No	Environmentally hazardous: No
No information available.				

14.6. Special precautions for user

Overland transport

Classification code (ADR) : F1
Limited quantities (ADR) : 1L
Excepted quantities (ADR) : E2
Packaging Instructions (ADR) : P001 IBC02 R001
Transport category (ADR) : 2
Hazard identification number : 33
Orange panel :



Tunnel Code (ADR) : (D/E)

Transport by sea

Limited quantities (IMDG) : 1L
Exempt quantities (IMDG) : E2
Packaging Instructions (IMDG) : P001

Air transport

Exempt quantities for passenger and cargo aircraft (IATA) : E2

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Limited quantities for passenger and cargo aircraft (IATA) : Y341
Maximum net quantity of limited quantities for passenger and cargo aircraft (IATA) : 1L
Packaging instructions for passenger and cargo aircraft (IATA) : 353
Maximum net quantity for passenger and cargo aircraft (IATA) : 5L
Packaging instructions for cargo aircraft (IATA) : 364
Maximum net quantity for cargo aircraft (IATA) : 60L
Special provisions (IATA) : /
ERG code (IATA) : 3H

Inland waterway transport

Classification code (ADN) : F1
Special Provisions (ADN) : /
Limited quantities (ADN) : 1L
Exempt quantities (ADN) : E2
Permitted transport (ADN) : T
Required equipment (ADN) : PP, EX, A
Number of blue cones/traffic lights (ADN) : 1

Rail transport

Classification code (RID) : F1
Limited quantities (RID) : 1L
Exempt quantities (RID) : E2
Packaging instructions (RID) : P001, IBC02, R001
Transport category (RID) : 2
Hazard Identification Number (RID) : 33

14.7. Maritime transport in bulk according to IMO instruments

No information available

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions.

Contains no substance on the REACH candidate list.

Contains no REACH Annex XIV substances.

Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

15.1.2. National regulations

Component	TSCA	DSL/NDSL	ENCS	IECSC	KECL	PICCS	AIIC
Heptane	Listed	Listed/Not listed	Listed	Listed	Listed	Listed	Listed

15.2. Chemical safety assessment

No additional information available

Note

TSCA : United States Toxic Substances Control Act Inventory.
DSL/NDSL : Canadian Domestic/Non-domestic Substances List.
ENCS : Japan Existing and New Chemical Substances Inventory.
IECSC : Inventory of Existing Chemical Substances in China.
KECL : Korean Existing Chemicals List.
PICCS : Philippines Inventory of Chemicals and Chemical Substances.
AIIC : Australian Inventory of Industrial Chemicals.

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SECTION 16: Other information

Issued By : Dongying Junyuan Petrochemical Technology Development Limited Company
Revision Date : 2025/10/14
Reason for modification : -

Abbreviations and acronyms	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties