Safety Data Sheet

1. Identification

Product identifier used on the label

Cyclopentane

Recommended use of the chemical and restriction on use

Recommended use*: Chemical
Recommended use*: Chemical
Unsuitable for use: Not intended for sale to or use by the general public.

* The “Recommended use” identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company
Vijay Petrochem Private Limited
Khasra.No. :2137/1750, 2139/1751 & 2169/1750,

Syau industrial Area, Govindgarh, Jaipur, Rajasthan

303712, India

Emergency telephone number

24 Hour Emergency Response Information
+91 96805-21212

Other means of identification

Chemical family: hydrocarbon, cyclic

2. Hazards Identification

According to Regulation 2024 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Asp. Tox.	1	Aspiration hazard
Flam. Liq.	2	Flammable liquids
STOT SE	3 (May cause drowsiness and dizziness.)	Specific target organ toxicity — single exposure
Aquatic Acute	2	Hazardous to the aquatic environment - acute

Aquatic Chronic	3	Hazardous to the aquatic environment - chronic

Label elements

Pictogram:

Signal Word:
Danger

Hazard Statement:

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.
H401	Toxic to aquatic life.

Precautionary Statements (Prevention):

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves and eye protection or face protection.
P271	Use only outdoors or in a well-ventilated area.
P243	Take action to prevent static discharges.
P273	Avoid release to the environment.
P261	Avoid breathing mist or vapour or spray.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P240	Ground and bond container and receiving equipment.
P242	Use non-sparking tools.

Precautionary Statements (Response):

P312	Call a POISON CENTER or physician if you feel unwell.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or physician.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P331	Do NOT induce vomiting.
P370 + P378	In case of fire: Use water spray, dry powder, foam or carbon dioxide for extinction.

Precautionary Statements (Storage):

P233	Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Precautionary Statements (Disposal):

P501	Dispose of contents/container in accordance with local regulations.

3. Composition / Information on Ingredients

According to Regulation 2024 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

cyclopentane
CAS Number: 287-92-3
Content (W/W): >= 95.0 - <= 100.0%
Synonym: No data available.

Butane, 2,2-dimethyl-
CAS Number: 75-83-2
Content (W/W): >= 0.0 - <= 5.0%
Synonym: 2,2-Dimethylbutane

isopentane
CAS Number: 78-78-4
Content (W/W): >= 0.0 - <= 5.0%
Synonym: 2-Methylbutane

4. First-Aid Measures

Description of first aid measures

General advice:
First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

If inhaled:
Keep patient calm, remove to fresh air, seek medical attention.

If on skin:
Immediately wash thoroughly with soap and water, seek medical attention.

If in eyes:
Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

If swallowed:
Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: Overexposure may cause:, nausea, headache, vomiting, dizziness, diarrhea, abdominal cramps, Ingestion may provoke the following symptoms:, asphyxia, dyspnea, choking, respiratory arrest, circulatory collapse, death
Hazards: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11. (Further) symptoms and / or effects are not known so far

Indication of any immediate medical attention and special treatment needed

Note to physician
Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
dry powder, water spray, carbon dioxide, foam

Unsuitable extinguishing media for safety reasons:
water jet

Additional information:
Use extinguishing measures to suit surroundings.

Special hazards arising from the substance or mixture

Hazards during fire-fighting:
Highly flammable. Cool endangered containers with water-spray. See SDS section 7 - Handling and storage.

Advice for fire-fighters

Protective equipment for fire-fighting:
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear. Special protective equipment for firefighters

Further information:
Evacuate area of all unnecessary personnel. Fight fire from maximum distance.

Extend fire extinguishing measures to the surroundings. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental release measures

Further accidental release measures:
High risk of slipping due to leakage/spillage of product.

Release of substance/product can cause fire or explosion. Shut off or stop source of leak. Shut off or stop released substance/product under safe conditions.

Pack in tightly closed containers for disposal.

Personal precautions, protective equipment and emergency procedures

Handle in accordance with good industrial hygiene and safety practice.

Avoid all sources of ignition: heat, sparks, open flame. Use antistatic tools. Avoid contact with the skin, eyes and clothing.

Take off immediately all contaminated clothing.

Environmental precautions

Discharge into the environment must be avoided.

Methods and material for containment and cleaning up
Pick up with suitable appliance and dispose of. Spills should be contained, solidified, and placed in suitable containers for disposal. Dispose of absorbed material in accordance with regulations.

7. Handling and Storage

Precautions for safe handling
Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:
Avoid all sources of ignition: heat, sparks, open flame. Ground all transfer equipment properly to prevent electrostatic discharge.

Conditions for safe storage, including any incompatibilities

Suitable materials for containers: Carbon steel (Iron)

Further information on storage conditions: Keep container tightly closed in a cool, well-ventilated place.

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

Butane, 2,2-dimethyl-	ACGIH, US:	TWA value 200 ppm ;
isopentane	ACGIH, US:	TWA value 1,000 ppm ;
cyclopentane	ACGIH, US:	TWA value 1,000 ppm ; Explosion hazard.

Personal protective equipment

Respiratory protection:
Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator.

Observe OSHA regulations for respirator use (29 CFR 1910.134).

Hand protection:
Wear chemical resistant protective gloves.

Eye protection:
Tightly fitting safety goggles (chemical goggles).

Body protection:
Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:
Ensure adequate ventilation. Avoid contact with the skin, eyes and clothing. Avoid inhalation of vapour. Wearing of closed work clothing is required additionally to the stated personal protection equipment. Handle in accordance with good industrial hygiene and safety practice. At the end of the shift the skin should be cleaned and skin-care agents applied.

9. Physical and Chemical Properties

Physical state:	liquid	
Form:	liquid	
Odour:	of petroleum distillate (e.g. gasoline, kerosene)	
Odour threshold:	not determined	
Colour:	colourless	
pH value:	The substance does not dissociate.	
crystalline melting point:	-93.9 °C	
Freezing point:	No data available.	
Boiling point:	49 °C (1,013 hPa)	
Flash point:	-20 °C	(DIN 51755, closed cup)
Flammability:	Highly flammable liquid and vapour.	
Lower explosion limit:	For liquids not relevant for classification and labelling. The lower explosion point may be 5 - 15 °C below the flash point.	
Upper explosion limit:	For liquids not relevant for classification and labelling.	
Autoignition:	320 °C	
SADT:	No data available.	
Vapour pressure:	347 hPa (20 °C) 692.06 hPa (37.8 °C) 1,041 hPa (50 °C) 1,234 hPa (55 °C)	
Density:	0.75 g/cm3 (15 °C) 0.746 g/cm3 (20 °C) 0.716 g/cm3 (50 °C)	
Relative vapour density:	2.4 Heavier than air.	
Partitioning coefficient n-octanol/water (log Pow):	3 (25 °C)	(measured)
Self-ignition temperature:	not self-igniting	
Thermal decomposition:	No data available.	

Viscosity, dynamic:	0.44 mPa.s (20 °C) Literature data.	
Viscosity, kinematic:	0.4 - 0.59 mm2/s (20 °C)	(measured)
Solubility in water:	not soluble	
Molecular weight:	70.13 g/mol	

Particle characteristics
Particle size distribution: not applicable

10. Stability and Reactivity

Reactivity
When heated can give off ignitable vapours.

Oxidizing properties:
Based on its structural properties the product is not classified as oxidizing.

Formation of flammable gases:	Remarks:	Forms no flammable gases in the presence of water.

Chemical stability
The product is chemically stable.

Possibility of hazardous reactions
No hazardous reactions if stored and handled as prescribed/indicated.

Conditions to avoid
Avoid all sources of ignition: heat, sparks, open flame. Avoid direct sunlight.

Incompatible materials
oxidizing agents

Hazardous decomposition products

Decomposition products:
No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:
No data available.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects
Acute toxicity
Assessment of acute toxicity: Virtually nontoxic after a single ingestion. Virtually nontoxic by inhalation.

Oral
Type of value: LD50
Species: rat (male/female)
Value: > 5,000 mg/kg (OECD Guideline 401)
No mortality was observed.

Inhalation
Type of value: LC50
Species: rat (male/female)
Value: > 25.3 mg/l (OECD Guideline 403)
Exposure time: 4 h
The vapour was tested.
No mortality was observed.

Dermal
No data available.

Assessment other acute effects
Assessment of STOT single:
Possible narcotic effects (drowsiness or dizziness).

Irritation / corrosion
Assessment of irritating effects: Not irritating to eyes and skin. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Skin
Species: rabbit
Result: non-irritant
Method: OECD Guideline 404
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Eye
Species: rabbit
Result: non-irritant
Method: OECD Guideline 405
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Sensitization
Assessment of sensitization: Skin sensitizing effects were not observed in animal studies. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Guinea pig maximization test
Species: guinea pig
Result: Non-sensitizing.
Method: Guideline 92/69/EEC, B.6
Analogous: Assessment derived from products with similar chemical character.
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Aspiration Hazard
May also damage the lung at swallowing (aspiration hazard).

Chronic Toxicity/Effects

Repeated dose toxicity
Assessment of repeated dose toxicity: No substance-specific organtoxicity was observed after repeated administration to animals. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

Genetic toxicity
Assessment of mutagenicity: The substance was not mutagenic in bacteria. The substance was not mutagenic in mammalian cell culture. The substance was not mutagenic in a test with mammals. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

Carcinogenicity
Assessment of carcinogenicity: No data available.

Reproductive toxicity
Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Teratogenicity
Assessment of teratogenicity: In animal studies the substance did not cause malformations. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

12. Ecological Information

Toxicity

Aquatic toxicity
Assessment of aquatic toxicity:
Acutely toxic for aquatic organisms. Harmful to aquatic organisms based on long-term (chronic) toxicity study data. Depending on local conditions and existing concentrations, disturbances in the biodegradation process of activated sludge are possible.

Toxicity to fish
LL50 (96 h) 5.83 mg/l, Oncorhynchus mykiss (calculated)

Aquatic invertebrates
EL50 (48 h) 10.2 mg/l, Daphnia magna (calculated, static)

Aquatic plants
EL50 (72 h) 4.29 mg/l (growth rate), Selenastrum capricornutum (calculated, static)

Chronic toxicity to fish
EC10 (60 d) 1.12 mg/l, Fish (calculated)

Chronic toxicity to aquatic invertebrates
EC10 (21 d) 1.95 mg/l, Daphnia sp. (calculated)
No data available.

Assessment of terrestrial toxicity
Toxic effects have been observed in terrestrial studies.

Soil living organisms

Toxicity to soil dwelling organisms:
EC10 (56 d) 27.4 mg/kg, other soil dwelling worm (calculated)

Toxicity to terrestrial plants

EC10 (21 d) 45.5 mg/kg, Brassica rapa (calculated)

Other terrestrial non-mammals
No data available.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms
calculated aquatic
aerobic microorganisms/EC10 (15 h): 12.3 mg/l

Persistence and degradability

Assessment biodegradation and elimination (H2O)
Readily biodegradable.

Elimination information

71.43 % CO_2 formation relative to the theoretical value (28 d) (OECD Guideline 301 F) (aerobic, activated sludge, domestic, non-adapted)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Assessment of stability in water
According to structural properties, hydrolysis is not expected/probable.

Information on Stability in Water (Hydrolysis)
No data available.

Bioaccumulative potential

Assessment bioaccumulation potential
Does not accumulate in organisms.

Bioaccumulation potential
Bioconcentration factor: 19.9 - 79.4, Fish (calculated)

Mobility in soil

Assessment transport between environmental compartments
The substance will rapidly evaporate into the atmosphere from the water surface.
Adsorption to solid soil phase is not expected.

13. Disposal considerations

Waste disposal of substance:
Dispose of in accordance with national, state and local regulations.

Container disposal:
Disposal must be made according to official regulations.

14. Transport Information

Land transport
USDOT

Hazard class:	3
Packing group:	II
ID number:	UN 1146
Hazard label:	3, EHSM
Proper shipping name:	CYCLOPENTANE MIXTURE

Sea transport
IMDG

Hazard class:	3
Packing group:	II
ID number:	UN 1146
Hazard label:	3, EHSM
Marine pollutant:	YES
Proper shipping name:	CYCLOPENTANE MIXTURE

Air transport
IATA/ICAO

Hazard class:	3
Packing group:	II
ID number:	UN 1146
Hazard label:	3
Proper shipping name:	CYCLOPENTANE MIXTURE

15. Regulatory Information

Federal Regulations
Registration status:
Chemical TSCA, US
All substances are TSCA listed and active.
EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.
State regulations

State RTK	CAS Number	Chemical name
NJ	78-78-4 75-83-2 287-92-3	isopentane Butane, 2,2-dimethyl- cyclopentane
PA	75-83-2 78-78-4 287-92-3	Butane, 2,2-dimethyl- isopentane cyclopentane

NFPA Hazard codes:
Health: 1 Fire: 3 Reactivity: 0 Special:

Assessment of the hazard classes according to UN GHS criteria (most recent version):

Aquatic Acute	2	Hazardous to the aquatic environment - acute
Aquatic Chronic	3	Hazardous to the aquatic environment - chronic
Flam. Liq.	2	Flammable liquids
Asp. Tox.	1	Aspiration hazard
STOT SE	3 (May cause drowsiness and dizziness.)	Specific target organ toxicity — single exposure

16. Other Information

SDS Prepared by:
BASF NA Product Regulations
SDS Prepared on: 2026/03/04

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