

MATERIAL SAFETY DATA SHEET



FOOD GRADE HEXANE

Section 1 – Chemical Product and Company Identification

Chemical Name: Hexane

Chemical Formula: Complex mixture of hydrocarbons

CAS Number: 110-54-3

Synonyms: Hexane, Food Grade hexane General Use: Extraction of vegetable oils

Manufacture's Name: Bharat Petroleum Corporation Limited

Address: Refinery, Mahul, Chembur, Mumbai 400074

Telephone Number for Info: 25533888 /25533999 / 25524888 / 25524999

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NFPA 704 (Sec 16)

Section 2 - Composition / Information on Ingredients

Composition: n Hexane : > 30%

2 Methyl Pentane : 25 to 30 % 3 Methyl Pentane : 15 to 17 % Methyl cyclo pentane : <10 % 2. 3 dimethyl butane : 4 to 6 %

Hazardous Components: All components non toxic / inflammable

ACGIH TLV: n Hexane – 50 ppm, other isomers of hexane – 500 ppm

Section 3 – Hazards Identification

Primary Entry Routes: Inhalation, skin, eyes and ingestion

Acute Effects: Defatting of the skin may occur with continued and prolonged

contact. Irritation and burning sensation may occur. Eye contact is irritating & damaging. Vapors can irritate eyes. Inhalation of vapors is irritating & can produce headaches, dizziness and

numbness

Carcinogenicity: Not listed as carcinogenic

Chronic Effects: No data available

Section 4 – First Aid Measures

Eyes: Flush with water for 15 min. Get medical attention.

Skin: Wash with warm water & soap.

Inhalation: Remove to fresh air. Consult a physician if irritation persists.

Ingestion: Get medical help at once. Do not induce vomiting

Section 5 – Fire Fighting Measures

Flash Point : < - 10 °C
Flash Point Method: Abel
Auto ignition Temperature: 225 °C
LEL: 1.2 %
UEL: 7.5 %

Flammability Classification: Flammable

Extinguishing Media: Foam, Dry Chemical Powder, CO2
Unusual Fire or Explosion Heat produces vapours and can cause violent rupture of

Hazards: cor

containers

Hazardous Combustion

Carbon dioxide, carbon monoxide

Products:

Fire-Fighting Instructions: Fire fighters should wear self breathing apparatus while fighting

fire

Section 6 - Accidental Release Measures

Small Spills: Shut off leaks without risk. Absorb on sand or earth.

Containment: Prevent spillage from entering drains or water sources

Cleanup: After spills wash area with soap and water preventing runoff from

entering drains:

Section 7 – Handling and Storage

Handling Precautions: Do not use/store near heat/open flame. Avoid breathing harmful

vapors. Avoid contact with skin and eyes. Wash thoroughly after

handling

Storage Requirements: Do not use/store near heat/open flame/water/acids

Section 8 – Exposure Controls / Personal Protection

Engineering Controls: Provide proper ventilation for environment to be below TWA

Respiratory Protection: Use respiratory protection if ventilation is improper

Protective Clothing / Use face shield, PVC gloves, safety boots while handling.

Equipment: Contaminated clothing to be immediately removed

Section 9 – Protection Physical and Chemical Properties

Physical State: Liquid

Appearance and Odor: Water white liquid with hydrocarbon like odour

Vapor Pressure: 3 to 4 psi at 25 °C

Specific Gravity: 0.67 to 0.68 gm / cc at 15 °C

Water Solubility:

Boiling Point:

Freezing Point:

Vapour Density:

Insoluble

63 °C to 70 °C

No Data Available

2.97 (Air = 1)

Section 10 - Stability and Reactivity

Stability: Chemically stable.

Chemical Incompatibilities: Incompatible with oxidizing agents & chlorine. Reacts vigorously

with oxidising materials. Mixtures with dinitrogen tetraoxide may

explode at 28°C.

Conditions to Avoid: Can undergo auto-oxidation in air & generate heat which can

build up in a confined space to cause spontaneous combustion

Hazardous Decomposition

Carbon di oxide, carbon mono oxide

Products:

Section 11 - Toxicological Information

TLV as per ACIGH: Hexane – 50 ppm, other isomers of hexane – 500 ppm

Acute Inhalation Effects: No data available

Section 12 – Ecological Information

Prevent spillage from entering drains or water sources. After spills wash area with soap and water preventing runoff from entering drains. Can burn with lot of heat producing CO2 and CO.

Section 13 – Disposal Considerations

Waste must be disposed of in accordance with federal, state and local environmental control regulations

Section 14 – Transport Information

Shipping Name: Hexane or Food Grade Hexane

Section 15 – Regulatory Information

Non - Toxic/Flammable Substance

Section 16 – Other Information

Can cause motor neuropathy in exposed workers. May be irritating to respiratory tract and narcotic in high concentrations. Inhalation of 5000 ppm for 1/6 hours produces marked vertigo. 25000—1000 ppm for 12 hours produces drowsiness, fatigue, loss of appetite, paresthesia in distal extremities. 2000 ppm for 1/6 hours produces no symptoms. Dangerous if abused. A solvent, permitted in food industry for extraction of oil. A very dangerous fire and explosion hazard when exposed to heat or flame

Prepared by: Process Safety Section, BPCL- Mumbai Refinery

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