

SAFETY DATA SHEET: HEXANE

MSDS No: TMC-AP-1208

1. IDENTIFICATION OF CHEMICAL PRODUCT

Name of substance: Hexane **Chemical Family:** Aliphatic

Product Description: Clear, colourless liquid

Supplier: **Transmare-Chemie (Singapore) Pte Ltd**
No. 12 Soon Lee Road, Singapore 628076
Telephone: (65) 6262 0122
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2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

Flammable liquid	Category 2
Skin Irritation	Category 2
Toxic to Reproduction	Category 2
Specific Target Organ Systemic Toxicity (Single Exposure)	Category 3 (Narcotic effects)
Specific Target Organ Systemic Toxicity (Repeated Exposure)	Category 2
Aspiration Toxicant	Category 1
Long Term Chronic Aquatic Toxicant	Category 2

GHS Label Elements

Symbols:



Signal Word(s): Danger

GHS Hazards Statement

Physical Hazards:

H225: Highly Flammable Liquid and Vapor

Health Hazards:

H304: May be fatal if swallowed or enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H361: Suspected of damaging fertility or the unborn child.
H373: May cause damage to organs through prolonged or repeated exposure.

Environmental Hazards:

H411: Toxic to aquatic life with long lasting effects.

GHS Precautionary Statement

Prevention:

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- P201: Obtain special instructions before use.
P202: Do Not handle until all safety precautions have been read and understood.
P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking.
P233: Keep container tightly closed.
P240: Ground/bond container and receiving equipment.
P241: Use explosion-proof electrical/ventilating/lighting equipment.
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P260: Do not breathe dust/fume/gas/mist/vapors/spray.
P264: Wash hands thoroughly after handling.
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.
P281: Use protective equipment as required.

Response:

- P303+P361+P353: If on Skin (or hair): Remove immediately all contaminated clothing. Rinse skin with water/shower.
P370+P378: In case of fire: Use appropriate media for extinction.
P302+P352: If on Skin: Wash with plenty of soap and water.
P304+P340: If Inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P308+P313: If exposed or concerned: Get medical advice/attention.
P314: Get medical advice/attention if you feel unwell.
P312: Call a POISON CENTER or doctor/physician if you feel unwell.
P331: Do Not induce vomiting.
P332+P313: If Skin Irritation occurs: Get medical advice/attention.
P362+P364: Take off contaminated clothing and wash before reuse.
P391: Collect spillage.

Storage:

- P403+P235: Store in a well-ventilated place. Keep cool.
P405: Store locked up.

Disposal

- P501: Dispose of contents and container to appropriate waste site or reclaimer in accordance with local and national regulations.

Other Hazards Which Do Not Result in Classification

Material can accumulate static charges which may cause an ignition.
Material can release vapours that readily form flammable mixtures.
Vapour accumulation could flash and/or explode if ignited.
Overexposure to n-hexane may cause effects on the peripheral nerves, resulting in weakness or numbness that readily form flammable mixtures.
Vapour accumulation could flash and/or explode if ignited.

Aggravated Medical Condition

N/A

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3. COMPOSITION/ INFORMATION ON INGREDIENTS **CAS NUMBER: 64742-49-0**

Chemical Name	CAS Number	Concentration
Naphtha (petroleum), Hydrotreated light	64742-49-0	100%
n-Hexane	110-54-3	40 - 60 %
Hexane (mixtures of isomers)	PRoprietary	30-45
Cyclohexane	110-82-7	<1 %

4. FIRST AID MEASURES

Inhalation, Skin Contact, Eye Contact, Ingestion



Medical attention. Emergency shower.



Emergency eyewash.

5. FIRE FIGHTING MEASURE

Appropriate Extinguishing Media:

- CO₂
- Alcohol Resistance Foam
- Dry Chemical

Inappropriate Extinguishing Media:

- Water Jet

6. ACCIDENTAL RELEASE MEASURES

- Eliminate ignition sources. Prevent liquid enters sewers, water sources, low area.
- Spill with sand, earth. Dilute contained spill with water. Dispose recover material conforms to local regulation.
- Keep public away.

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7. HANDLING AND STORAGE

Storage/ Transport Temperature: Ambient	Loading/ Unloading Temperature: Ambient
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Ensure all equipment is electrically grounded before beginning transfer operations.
Take precautionary measures against static discharge.
Keep away from heat and sources of ignition.
Avoid breathing mists or vapour. Avoid contact with skin.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Control Measures/Ventilation

Use Local exhaust ventilation to control process.
Provide mechanical ventilation of confined spaces.
Use explosion-proof ventilation equipment.

Occupational Exposure Limits (OEL) Values

Naphtha

- RCP-TWA: 85 ppm

n-Hexane

- PEL: 50 ppm Singapore (2006)
- TWA: 50 ppm ACGIH (2022)

Hexane (mixtures of isomers)

- TWA: 500 ppm ACGIH (2022)
- STEL: 1000 ppm ACGIH (2022)

Cyclohexane

- PEL: 300 ppm Singapore (2006)
- TWA: 100 ppm ACGIH (2022)

Personal Protection



Vapor respirator. Gloves. Goggles. Full suit. Footwear.

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9. PHYSICAL AND CHEMICAL PROPERTIES	
Physical State:	Liquid
Form/Color:	Clear / Colourless
Odor:	Slight
Flash Point (TCC ASTM D56):	-23°C
Boiling Point / Range:	65-68°C
Specific Gravity(15.0/15.0):	0.68
Density (15°C):	680kg/m ³
Freezing/Melting Point:	N/A
Auto-ignition Temperature:	267°C
Evaporation Rate (n-Bu Acetate=1):	14
Vapor Pressure (20°C):	135.01 mm Hg
Viscosity (20°C):	0.5 cSt
Viscosity (40°C):	0.4 cSt
Solubility in Water (20°C):	Negligible
Explosive Limits (in air):	1.2-8.0vol%
Vapor Density (101.3kPa/air = 1):	3 at 101kPa
Molecular Weight:	86g/mol
Coeff. Of Thermal Expansion (liq):	0.00135/°C
Odor Threshold:	N/A
pH:	N/A
Material Hygroscopic:	No
Pour Point:	-108 °C
Log Pow: (n-Octanol/Water Partition Coefficient)	>4

10. STABILITY AND REACTIVITY			
Hazardous Polymerization:	Will not occur	Conditions to Avoid Polymerization:	N/A
Stability:	Stable	Conditions to Avoid Instability:	N/A
Materials and Conditions to Avoid:	Strong oxidizing agents.		
Hazardous Decomposition Products:	N/A		

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11. TOXICOLOGICAL INFORMATION

Inhalation:	Irritation to respiratory tract. May cause dizziness. May affect central nervous system.
Skin Contact:	Defat, dry skin. Low order of toxicity.
Eye Contact:	May cause irritation to the eyes. Might injured eye tissue.
Ingestion:	Minimal toxicity, small amounts may cause bronchopneumonia or pulmonary edema.

12. ECOLOGICAL INFORMATION

Environmental Mobility:	Highly volatile and will rapidly evaporate to the air if released in water.
Environmental Degradability:	Biodegrade rapidly. Removed in wastewater treatment facility.
Ecotoxicity and Bioaccumulation:	Expected to be toxic to aquatic organisms. Long term adverse effects to aquatic organisms are possible if continued exposure is prolonged.

13. DISPOSAL CONSIDERATIONS

- Combine with other materials to indicate another route of disposal.
- Recycle, recover or dispose empty drums through a suitably qualified or licensed contractor.
- Ensure compliance with national and local regulations.
- NOT suitable for disposal by either landfill or via municipal sewers, drains, natural streams or rivers.
- This product is ash less and can be burned directly in appropriate equipment
- Contact Transmare-Chemie or local Authorities for more information.

14. TRANSPORT INFORMATION

	Land	Sea	Air
Class	3	3	3
Packing Group	II	II	II
UN Number	1208	1208	1208
Transport Document Name	Hexanes, Class 3, UN 1208, PG II, (-23°C c.c.)	Hexanes, Class 3, UN 1208, PG II, (-23°C c.c.)	Hexanes, Class 3, UN 1208, PG II
Others	Hazchem Code: 3YE	Marine Pollutant: Yes EmS: F-E, S-D Risk Label: 3	

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15. REGULATORY INFORMATION

Material is hazardous as defined by Specification for hazard communication for hazardous chemicals and dangerous goods (Singapore Standard SS586) Part 2:2014 – Globally Harmonised System of classification and labelling of chemicals – Singapore’s adaptations.

National Laws and Regulations:

1. Workplace Safety and Health Act & Workplace Safety and Health (General Provision) Regulations
2. Environmental Protection and Management Act and Environmental Protection and Management (Hazardous Substances) Regulations
3. Maritime and Port Authority of Singapore (Dangerous Goods, Petroleum & Explosives) Regulations
4. Fire Safety Act and Fire Safety (Petroleum and Flammable Materials) Regulations

REGULATORY STATUS AND APPLICABLE LAWS AND REGULATIONS

Listed or exempted from listing/notification on the following chemical inventories:
(May contain substance(s) subjected to notification to the EPA Active TSCA Inventory prior to import to USA)

- AIIC
- DSL
- ENCS
- IECSC
- KECI
- PICCS
- TCSI
- TSCA

16. OTHER INFORMATION**Revision Date on 22th April 2024**

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of Transmare-Chemie Company’s knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user’s responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use.