

## SAFETY DATA SHEET

### 1. IDENTIFICATION

**Product Name:** HEPTANE

**Recommended Use:** Synthetic/Analytical Chemistry

**Supplier:** TMK Packers Ltd

**Address:** 2/20 Trugood Drive, East Tamaki.  
PO Box 258 031, Botany, Manukau 2163

**Telephone:** (+64) 9 273 3753

**Facsimile:** (+64) 9 273 3752

**Website:** [www.tmkpackers.co.nz](http://www.tmkpackers.co.nz)

**Emergency phone:** National Poisons Centre  
0800 POISON [ 0800 764 766]



### 2. HAZARDS IDENTIFICATION

Product is classified as hazardous according to Schedules 1 to 6 of the *Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001* of the HSNO Act, 1996.

**HSNO Classifications:** 3.1B, 6.1E, 6.3B, 6.4A, 6.9B, 9.1B



**Signal word:** DANGER

#### Hazard Statements:

H225 Highly flammable liquid and vapour.  
H303 May be harmful if swallowed.  
H304 May be fatal if swallowed and enters airways.  
H316 Causes mild skin irritation.  
H320 Causes eye irritation.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H411 Toxic to aquatic life with long-lasting effects.

#### Prevention Statements:

P102 Keep out of reach of children.  
P103 Read label before use.  
P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.  
P233 Keep container tightly closed.  
P240 Ground container and receiving equipment.  
P241 Use explosion-proof equipment.

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- P242 Use non-sparking tools.  
P243 Take precautionary measures against static discharge.  
P260 Do not breathe fume/vapours.  
P264 Wash hands thoroughly after handling.  
P273 Avoid release to the environment.  
P280 Wear protective clothing, gloves and eye protection.

**Response Statements:**

- P101 If medical advice is needed, have product container or label at hand.
- P314 Get medical advice if you feel unwell.
- P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE or doctor.  
P331 Do NOT induce vomiting.
- P303 + P361 + P353 IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water.  
P332 + P313 If skin irritation occurs: Get medical advice.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337 + P313 If eye irritation occurs: Get medical advice.
- P391 Collect spillage.
- P370 + P378 in case of fire: Stop leak if safe to do so.

**Storage Statements:**

- P403 + P235 Store in a well-ventilated.  
P405 Store locked up.

**Disposal Statement:**

- P501 Dispose of product and containers in accordance with local regulations.

### 3. COMPOSITION: Information on Ingredients

Chemical Ingredient	CAS No.	Proportion (%)
Heptane and isomers	mixture	35 - 55
Cyclohexane	110-82-7	25 – 35
Methylcyclohexane	108-87-2	< 15
Hexane	110-54-3	<10

### 4. FIRST AID MEASURES

For advice, contact National Poisons Centre (0800 POISON; 0800 764 766) or a doctor.  
Have product container or label available. Get medical advice if you feel unwell.

**Swallowed**

If swallowed, do NOT induce vomiting. Rinse mouth. Where there is risk of vomiting, lean person forward or place on left side to avoid aspiration of product into lungs. Obtain immediate medical attention.

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### Skin Contact

If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If irritation persists, get medical attention.

### Eye Contact

Hold eyelids apart and flush the eye continuously with running water. Continue flushing for at least 15 minutes. Remove contact lenses if present and easy to do, after the first 5 minutes and continue rinsing. Get medical attention if irritation persists.

### Inhalation

Move the victim to fresh air immediately. Keep warm and at rest until recovered. Get medical attention if symptoms continue. Begin artificial respiration if breathing has stopped. Get immediate medical attention.

### First Aid facilities

Provide eye baths and safety showers close to areas where splashing may occur.

### Advice to doctor

Treat according to symptoms. Gastric lavage may be indicated if ingested. Risk of aspiration into lungs with potential to cause chemical pneumonitis.

## 5. FIRE FIGHTING MEASURES

**Flashpoint:** -15°C

**Flammable limits:** LFL: not available UFL: not available

**Extinguishing media:** Dry chemical or alcohol foam or CO<sub>2</sub>.

### Fire & Explosion hazards:

Liquid and vapours are highly flammable. Do not breathe smoke, gases or vapours generated in a fire. Expansion or decomposition of containers may lead to rupture of containers.

### Firefighting Equipment:

Full protective clothing and self-contained breathing apparatus (SCBA).

### In event of fire:

- Alert Fire Bridge (111); advise location and nature of hazard.
- Wear breathing apparatus and protective gloves.
- Shut off product that may 'fuel' a fire if safe to do so.
- If safe, switch off electrical equipment until vapour hazard removed.
- Allow trained personnel to attend a fire in progress, providing fire-fighters with this Safety Data Sheet.
- Prevent product and extinguishing media from escaping to drains and waterways.

**Hazards from combustion products:** Carbon dioxide, carbon monoxide.

**Hazchem Code:** 3YE

## 6. ACCIDENTAL RELEASE MEASURES

### Emergency Procedures & Containment:

Refer to "Fire Fighting Measures", "First Aid Measures" and "Stability and Reactivity".

### Minor spills

- Remove or eliminate all ignition sources.

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- Clean up spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Wear personal protective equipment.
- Contain and absorb small quantities with vermiculite or other absorbent material.
- Collect residues and waste material in a labeled container suitable for flammables.
- Seal container and dispose of safely.

#### Major spills

- Clear area of personnel and move upwind.
- Alert Fire Bridge (111); advise location and nature of hazard.
- Wear breathing apparatus plus protective gloves.
- Stop leak if safe to do so.
- Contain spill with sand, earth or vermiculite.
- Prevent by any means available, spillage from entering drains, sewers, watercourses, or low-lying areas.
- Eliminate sources of ignition, naked lights. No smoking.
- Increase ventilation.
- Water spray or fog may be used to disperse/absorb vapour.
- Use only spark-proof tools, e.g. shovels, and explosion proof equipment, e.g. pumps.
- Collect recoverable product into labeled containers for recycling.
- Absorb remaining product with sand, earth or vermiculite.
- Collect solid residues and seal in labeled drums for disposal.
- Wash area and prevent run off into drains.
- If contamination of drains or waterways occurs, advise Emergency Services and Local or Regional authority.

## 7. HANDLING AND STORAGE

#### Precautions for safe handling:

Read product label before use. This product is highly flammable. Do not open near open flame, sources of heat or ignition. No smoking. Keep container closed. Handle containers with care. Open slowly to control possible pressure release. Material will accumulate static discharge. Use outdoors or in well-ventilated area. Wear personal protective equipment. Wash hands with soap and water after handling. Wash protective clothing separate to household laundry.

#### Conditions for safe storage:

Keep out of reach of children. Store locked up in a cool, dry place away from direct sunlight. This product will fuel a fire in progress. Check containers periodically for leaks or distortion.

**Incompatible materials:** Natural rubber, butyl rubber, EDPM, polystyrene.

## 8. EXPOSURE CONTROLS: PERSONAL PROTECTION

#### Health Exposure Standards:

Workplace Exposure Standards (WES) have been set by for components in this product.

	WES-TWA	WES-STEL
Heptane	400 ppm (1640 mg/m <sup>3</sup> )	500 ppm (2050 mg/m <sup>3</sup> )
Cyclohexane	100 ppm (350 mg/m <sup>3</sup> )	300 ppm (1050 mg/m <sup>3</sup> )
Hexane <sup>(bio)</sup>	20 ppm (72 mg/m <sup>3</sup> )	
Methylcyclohexane	400 ppm (1610 mg/m <sup>3</sup> )	



**Biological limit values:** 2,5-hexanedione in urine, 5 mg/L (end of shift).

### Engineering Controls:

#### Ventilation:

Use product outdoors or in well-ventilated area. If using product in commercial or industrial situations where concentrations in air may exceed the limits described in the Workplace Exposure Standards The use of local exhaust ventilation is recommended to control emissions near the source. Provide mechanical ventilation in confined spaces. Use explosion-proof ventilation equipment.

### Personal Protective Equipment:

**Respiratory Protection:** When using product in commercial or industrial situations where concentrations in air may exceed the limits described in the Workplace Exposure Standards, it is recommended to use a half-face filter mask to protect from overexposure by inhalation. A type "A" filter material is considered suitable for this product.

**Eye Protection:** Protect eyes from splashes, aerosols or vapour. It is recommended safety glasses with side shields or goggles be worn where there is risk of splashes.

#### Skin/ Body Protection:

If using product in commercial or industrial situations, wear chemical resistant gloves, e.g. PVC, nitrile rubber, also safety footwear or safety gumboots, e.g. rubber. Always wear long sleeves and long trousers or coveralls.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Unit of measurement	Typical value
Appearance	-	Clear colourless liquid
Odour	-	Solvent
Flash Point	°C	-17 °C
Specific gravity @ 20°C	g/ml	0.792
Vapour Pressure @ 20°C	mm Hg	180
Vapour Density @ 20°C	kPa	Not available
Explosive Limits in Air	%	2.2 - 13
Viscosity	cSt	Not available
Volatiles	%vol/vol	Not available
Alkalinity/acidity (as pH)	-	Not applicable
Solubility in Water	% w/w	Miscible

The values listed are indicative of this product's physical and chemical properties.

## 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable at room temperature and pressure.

**Conditions to avoid:** Sources of heat and ignition, open flames.

**Hazardous decomposition products:** No decomposition products except on burning. See "Fire Fighting Measures" and "Hazardous Reactions".

**Hazardous reactions:** Oxidizing agents, strong alkalis, strong mineral acids, bromine.

## 11. TOXICOLOGICAL INFORMATION

### Acute Effects

#### Ingestion

Will irritate throat, trachea and respiratory tract. Ingestion of small amounts may cause nausea. Ingestion of large amounts will have a narcotic effect; headaches, dizziness, euphoria, loss of appetite and possible unconsciousness. Aspiration into the lungs by ingestion or vomiting may result in chemical pneumonitis.



### Eye Contact

This product may be moderately to severely irritating to eyes and may result in corneal damage if not promptly treated. Exposure to vapour concentrations of 500 – 1000 ppm usually is irritating to eyes.

### Skin Contact

This product is mildly irritating to skin with short term contact. Prolonged or repeated exposure will increase risk of dryness and cracking of skin.

### Inhalation

Vapour concentrations above 500 ppm are irritating to nose and throat. Exposure to high concentrations (above 1000 ppm) result in narcotic effects; possible symptoms are headaches, dizziness, loss of co-ordination, nausea, loss of appetite. In severe case loss of unconsciousness is possible.

### Chronic Effects

Prolonged or repeated exposure to skin may result in irritant contact dermatitis.

### Other Health Effects Information:

Exposure to this product can increase toxicity to kidneys and liver to hydrocarbon solvents such as trichloroethylene and chloroform.

### Toxicological Information:

Heptane	Mouse, oral, LD <sub>50</sub> 813 mg/kg Rat, inhalation, LC <sub>50</sub> (4hr) 13.9 mg/L
Hexane	Mouse, oral, LD <sub>50</sub> 2250 mg/kg

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity:

#### Aquatic toxicity:

Product is identified as being toxic to aquatic life with long-lasting effects.

#### Persistence/degradability:

Product contains components that do not rapidly biodegrade. Not expected to significantly bioaccumulate.

#### Mobility:

This product is highly volatile and will rapidly evaporate to air if released into water. Expected to leach readily in most soil types.

#### Other information:

None

Environmental Exposure Standards: Not set.

## 13. DISPOSAL CONSIDERATIONS

### Disposal Methods:

Care should be taken to ensure compliance with national, regional and local authority regulations. Packaging may still contain fumes and vapours that are flammable. Ensure that empty packaging is allowed to dry. Empty packaging should be taken for recycling, recovery or disposal through a suitably qualified or licensed contractor.

## 14. TRANSPORT INFORMATION

UN Number:	1206
Shipping name:	Heptanes
Class:	3
Packing group:	II
Hazchem code:	3YE

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### **Dangerous Goods Segregation**

This product is classified as Dangerous Goods Class 3, Packing Group II.  
Please consult NZS 5433:2012 Transport of Dangerous Goods on Land for information.



## **15. REGULATORY INFORMATION**

Country/ Region: New Zealand  
Inventory: NZIoC  
Status: Components listed

EPA New Zealand HSNO Approval Code: HSR002650, Solvent (Flammable) Group Standard 2006; Refer [www.epa.govt.nz](http://www.epa.govt.nz) for information on Controls.

## **16. OTHER INFORMATION**

Issue number: 1  
Date of Issue: 1<sup>st</sup> March 2023  
Reasons for Issue: New SDS  
Replaces: -

### **Abbreviations:**

CAS No Chemical Abstracts Number  
EPA Environmental Protection Authority  
HSNO Hazardous Substances and New Organisms  
NZIoC New Zealand Inventory of Chemicals  
STEL Short Term Exposure Limit  
TWA Time Weighted Average  
WES Workplace Exposure Standard

### **References:**

Supplier Material Safety Data Sheets  
EPA website: [www.epa.govt.nz](http://www.epa.govt.nz)

The information sourced for the preparation of this document was correct and complete at the time of writing to the best of the writer's knowledge. The document represents the commitment to the company's responsibilities surrounding the supply of this product, undertaken in good faith. This document should be taken as a safety guide for the product and its recommended uses but is in no way an absolute authority. Please consult the relevant legislation and regulations governing the use and storage of this type of product. For further information, please contact TMK Packers Ltd.

END OF SAFETY DATA SHEET

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