



SAFETY DATA SHEET

PRODUCT NAME: HEPTANE

Issue Date: May 23

IDENTIFICATION

Product Name: Heptane
Product Code: ZHEPT, CH20
Uses: Industrial Solvent
Supplier: HamChem Hamilton Chemicals Ltd, 75 Ruffell Rd, Hamilton
Phone: 079744971 Email: info@hamchem.nz Web: www.hamchem.nz

- In emergency dial 111, and then ask for Fire, Ambulance or Police as necessary.
- In case of poisoning phone National Poisons Centre – 0800 764 766

HAZARD IDENTIFICATION



GHS Classifications

Flammable Liquids – Category 2

Aspiration Hazard – Category 1

Hazardous to the Aquatic Environment (Chronic) – Category 1

Signal Word: DANGER

Hazard Statements

H225 Highly flammable liquid and vapour

H304 May be fatal if swallowed and enters airways

H410 Very toxic to aquatic life with long lasting effects

Prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P233 Keep container tightly closed

P240 Ground and bond container and receiving equipment

P241 Use explosion-proof electrical/ventilating/lighting equipment

P242 Use non-sparking tools

P243 Take action to prevent static discharges

P280 Wear protective gloves/clothing and eye/face protection

P273 Avoid release to the environment

Response

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 carbon dioxide, dry chemical or foam to extinguish

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE or Doctor

P331 Do NOT induce vomiting

P391 Collect spillage

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Storage

P403 + P235 Store in a well-ventilated place. Keep container cool.

P405 Store locked up

Disposal

P501 – Dispose of contents/container to an approved waste facility in accordance with local regulations

COMPOSITION & INFORMATION ON INGREDIENTS

Chemical Entity

n - Heptane

CAS No.

142-82-5

Proportion (%)

>99%

FIRST AID MEASURES

If swallowed: DO NOT INDUCE VOMITING. Wash out mouth with water. Where vomiting occurs naturally have victim place head below hip level in order to reduce risk of aspiration. Seek immediate medical attention.

If on skin: Wash affected area thoroughly with soap and water. Remove contaminated clothing and wash before reuse or discard. If symptoms develop seek medical attention.

If inhaled: Remove the source of contamination or move the victim to fresh air. Ensure airways are clear and have qualified person give oxygen through a face mask if breathing is difficult. If symptoms develop seek medical attention.

If in eyes: If contact with the eye(s) occurs, wash with copious amounts of water holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. If symptoms persist seek medical attention.

Note to Physician: Treat symptomatically.

FIRE FIGHTING MEASURES

Extinguishing media: Use carbon dioxide, dry chemical or foam.

Specific hazards: This product is highly flammable. Keep storage tanks, pipelines, fire-exposed surfaces etc cool with water spray. Shut off any leak if safe to do so and remove sources of re ignition. Vapour/air mixtures may ignite explosively. Flashback along the vapour trail may occur. Runoff to sewer may create fire or explosion hazard. Under fire conditions this product may emit toxic and/or irritating fumes including carbon monoxide and carbon dioxide.

Special protective precautions & equipment: Fire-fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode.

ACCIDENTAL RELEASE MEASURES

Emergency Procedures: Wear appropriate personal protective equipment and clothing to minimise exposure. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unnecessary personnel. If possible, contain the spill. Place inert absorbent material onto spillage. Use clean non-sparking tools to collect the material and place into a suitable labelled container for subsequent recycling or disposal. Dispose of waste according to local regulations. If contamination of sewers or waterways occurs, inform the local water and waste management authorities in accordance with local regulations.

HANDLING & STORAGE

Precautions for Safe Handling: Wear appropriate personal protective equipment and clothing to prevent exposure. Handle and use the material in a well-ventilated area, away from sparks, flames and other

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ignition sources. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Work from suitable, labelled, fire-resistant containers. Open containers carefully as they may be under pressure. Keep containers tightly closed. Flameproof equipment is necessary in the areas where the product is being used. Take precautionary measures against static discharges. Earth or bond all equipment. Do not empty into drains. Ensure a high level of personal hygiene is maintained when using this product, that is, always wash hands before eating, drinking, smoking or using toilet facilities.

Conditions for Safe Storage, including any Incompatibilities: Highly flammable liquid and vapour. Store in a cool, dry, well-ventilated area away from sources of ignition, oxidising agents, strong acids, foodstuffs, and clothing. Keep containers closed when not in use, securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area. Take precautions against static electricity discharges. Use proper grounding procedures. Ensure that storage conditions comply with applicable local and national regulations.

Recommended Materials: Suitable containers/packing: carbon steel, stainless steel, Polyethylene, Polypropylene, Polyester, Teflon.

Unsuitable Materials: Natural rubber, butyl rubber, Ethylene-propylene-monomer (EPDM), Polystyrene

EXPOSURE CONTROLS & PERSONAL PROTECTION
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Exposure standards: As per Worksafe NZ – Workplace Exposure Standards (April 2022)

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³
Heptane	400	1,640	500	2,050

Engineering controls: Provide sufficient ventilation to keep airborne levels below the exposure limit. This substance is hazardous and should be used with a local exhaust ventilation system, drawing vapours away from workers breathing zone. A flame-proof exhaust ventilation system is required. If the engineering controls are not sufficient to maintain concentrations of vapours/mists below the exposure standard, suitable respiratory protection must be worn. Refer to relevant regulations for further information concerning ventilation requirements.

Respiratory Protection: If engineering controls are not effective in controlling airborne exposure, then an approved respirator with a replaceable vapour/mist filter should be used. Refer to relevant regulations for further information concerning respiratory protection requirements. Half-face filter respirator Type-A filter material. Refer to AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Eye Protection: Safety glasses with side shields, goggles or full-face shield as appropriate recommended. Final choice of appropriate eye/face protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk assessments undertaken. Eye protection should conform with AS/NZS 1336 Eye & Face Protection Guidelines and AS/NZS 1337 Personal Eye Protection

Hand Protection: Wear gloves of impervious material such as nitriles. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Occupational protective gloves should conform to relevant regulations. Note: Gloves made of polyvinyl acetate (PVA) are not water-resistant and are not suitable for emergency use. Reference should be made to AS/NZS 2161 Occupational Protective Gloves – Selection, Use and Maintenance

Body Protection: Suitable work wear should be worn to protect personal clothing, eg cotton overalls buttoned at neck and wrist. When large quantities are handled the use of plastic aprons and rubber boots is recommended. Reference should be made to AS/NZS 2210 Safety, Protective & Occupational Footwear and AS/NZS 4501 Occupational Protective Clothing

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PHYSICAL & CHEMICAL PROPERTIES

Form	Liquid
Appearance	Clear Liquid
Colour	Colourless
Odour	Mild
Decomposition Temperature	Not available
Melting Point	<0°C
Boiling Point	78 - 110°C
Solubility in Water	Negligible
Specific Gravity (15°C)	0.72
pH	Not available
Vapour Pressure	8.65 kPa (20°C) 19.44kPa (38°C) 31.47kPa (50°C)
Vapour Density	Not available
Evaporation Rate	6 (n-Butyl Acetate = 1)
Odour Threshold	Not available
Density	720 kg/m ³ (15°C)
Flash Point	-15°C (ASTM D56) approximate
Flammability	Highly flammable liquid and vapour
Auto-Ignition Temperature	>200°C
Flammable Limits – Lower	1.0% (v/v)
Flammable Limits – Upper	7.0% (v/v)
Molecular Weight	94 (approximate)
Dynamic Viscosity	0.41 cSt (40°C) 0.60 cSt (25°C)

STABILITY & REACTIVITY

Stability: Stable under normal conditions of storage and handling.

Hazardous decomposition products: Thermal decomposition may result in the release of toxic and/or irritating fumes including carbon monoxide and carbon dioxide.

Hazardous polymerization: Will not occur.

Incompatibles: Strong oxidising agents.

Conditions to avoid: Heat, direct sunlight, open flames or other sources of ignition.

TOXICOLOGICAL INFORMATION

Toxicity data: Acute Toxicity – Oral: LD50 (oral): >15,000mg/kg; Acute Toxicity – Dermal: LD50 (dermal): >2,000mg/kg

Ingestion: May be fatal if swallowed and enters airways. Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause severe pulmonary injury that may lead to death. May cause irritation to the mouth, throat, oesophagus and stomach with symptoms of nausea, abdominal discomfort, vomiting and diarrhoea.

Inhalation: Inhalation of product vapours may cause irritation of the nose, throat and respiratory system. May cause irritation to the mucous membrane and upper airways, especially where vapours or mists are generated. Symptoms include sneezing, coughing, wheezing, shortness of breath, headache, dizziness, drowsiness, nausea and vomiting. Prolonged inhalation may cause central nervous system depression with symptoms including dizziness, drowsiness, nausea and headaches.

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Skin: Causes skin irritation. Skin contact will cause redness, itching and swelling. Repeated exposure may cause skin dryness and cracking, and may lead to dermatitis.

Eye: May be irritating to eyes. The symptoms may include redness, itching and tearing.

Respiratory Sensitisation: Not expected to be a respiratory sensitiser.

Skin Sensitisation: Not expected to be a skin sensitiser.

Germ Cell Mutagenicity: Not considered to be a mutagenic hazard.

Carcinogenicity: Not considered to be a carcinogenic hazard.

Reproductive Toxicity: Not considered to be toxic to reproduction.

STOT-single exposure: May cause drowsiness or dizziness.

STOT-repeated exposure: Not expected to cause toxicity to a specific target organ.

Aspiration Hazard: May be fatal if swallowed and enters airways.

ECOLOGICAL INFORMATION

Ecotoxicity: Toxic to aquatic life with long lasting effects.

Persistence and Degradability: Expected to be readily biodegradable. Expected to degrade rapidly in air.

Mobility: The substance has to be scored as being highly volatile from water. Not expected to partition to sediment and wastewater solids.

Bioaccumulative: Yes

Other Adverse Effects: Not available

Environmental Protection: Do not discharge this material into waterways, drains and sewers.

DISPOSAL CONSIDERATIONS

Disposal Considerations: Dispose of waste according to local and national regulations. Labels should not be removed from containers until they have been cleaned. Advise flammable nature. Empty containers may contain flammable residues. Do not cut, puncture or weld on or near containers. Contaminated containers must not be treated as household waste. Containers should be cleaned by appropriate methods and then re-used or disposed of by landfill or incineration, as appropriate. Do not incinerate closed containers. Wastes including emptied containers are controlled wastes and should be disposed of in accordance with all applicable local and national regulations. Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected.

Product Disposal: Product wastes are controlled wastes and should be disposed of in accordance with all applicable local and national regulations. This product can be disposed of through a licensed commercial waste collection service. In this specific case the product is a solvent-based, flammable substance and therefore can be sent to an approved high temperature incineration plant for disposal. Large volumes may be re-distilled by solvent recovery contractors.

TRANSPORT INFORMATION

UN Number:	1206
Proper Shipping name:	Heptanes
Dangerous Goods Class:	3
Packing group:	II
Hazchem Code:	3[Y]E

REGULATORY INFORMATION

HSNO Classifications: 3.1B, 6.1E, 9.1A

HSNO Approval Number: HSR001164

OTHER INFORMATION

End of SDS.

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