




**EMERGENCY NUMBERS:**

 (USA) CHEMTREC : 1(800) 424-9300 (24hrs)  
 (CAN) CANUTEC : 1(613) 996-6666 (24hrs)  
 (USA) Anachemia : 1(518) 297-4444  
 (CAN) Anachemia : 1(514) 489-5711

WHMIS	Protective Clothing	TDG Road/Rail
WHMIS CLASS: B-2 D-2B		TDG CLASS: 3 PIN: UN1206 PG: II
		

## Section I. Product Identification and Uses

<b>Product name</b>	<b>HEPTANE</b>	<b>CI#</b>	Not available.
<b>Chemical formula</b>	CH <sub>3</sub> (CH <sub>2</sub> ) <sub>5</sub> CH <sub>3</sub>	<b>CAS#</b>	142-82-5
<b>Synonyms</b>	n-Heptane, Heptyl hydride, Dipropyl methane, GD-4788, AC-4788, AC-4788P, AC-4788T, 44386, 44394, 44405	<b>Code</b>	GD-4788
<b>Supplier</b>	Anachemia Canada. 255 Norman. Lachine (Montreal), Que H8R 1A3	<b>Formula weight</b>	100.21
<b>Material uses</b>	For laboratory use only.		
		<b>Supersedes</b>	

## Section II. Ingredients

Name	CAS #	%	TLV
1) HEPTANE	142-82-5	90-100	Exposure limits: ACGIH TWA 400 ppm (1640 mg/m <sup>3</sup> ); STEL 500 ppm (2050 mg/m <sup>3</sup> )

<b>Toxicity values of the hazardous ingredients</b>	HEPTANE: LD50: Not available. LC50: Not available.
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**Section III. Physical Data**

Physical state and appearance / Odor	Clear liquid, mild odor.
pH (1% soln/water)	Neutral
Odor threshold	49 to 200 ppm
Percent volatile	100% (V/V)
Freezing point	Not available.
Boiling point	93 to 98°C
Specific gravity	0.7 @ 15.5°C (Water = 1)
Vapor density	3.5 (Air = 1)
Vapor pressure	40 (83) mm of Hg @ 20°C (38°C)
Water/oil dist. coeff.	Not available.
Evaporation rate	»1(n-Butyl acetate = 1).
Solubility	Insoluble in cold water.

**Section IV. Fire and Explosion Data**

Flash point	CLOSED CUP: -4°C (Tag Closed Cup)
Flammable limits	LOWER: 1% UPPER: 7%
Auto-ignition temperature	204°C
Fire degradation products	Oxides of carbon (CO, CO <sub>2</sub> ).
Fire extinguishing procedures	Use DRY chemical, carbon dioxide, or foam. Water may be ineffective to extinguish fires. Wear adequate personal protection to prevent contact with material or its combustion products. Self contained breathing apparatus with a full facepiece operated in a pressure demand or other positive pressure mode. Cool containing vessels with flooding quantities of water until well after fire is out. Do not use a direct water stream.
Fire and Explosion Hazards	Extremely flammable. Vapors formed from this product may travel or be moved by air currents and ignited by pilot lights, other flames, sparks, heaters, electrical equipment, static discharges or other ignition sources at locations distant from handling point. Vapor forms explosive mixture with air. Container explosion may occur under fire conditions or when heated. Contact with oxidizers may cause fire and/or explosion. Liquid can accumulate static charge by flow or agitation. Take precautionary measures against electrostatic discharges. Sensitive to static discharge. The sensitivity to impact is not available. Emits toxic fumes under fire conditions. This material may produce a floating fire hazard.

**Section V. Toxicological Properties**

Routes of entry	Ingestion and inhalation. Eye contact. Skin contact. Skin absorption.
Effects of Acute Exposure	Harmful by inhalation, in contact with skin and if swallowed. Irritant. Narcotic.. Target organs: central nervous system, skin, respiratory system, lungs, peripheral nervous system. 750 ppm (HEPTANE) is immediately dangerous to life or health
Eye	Causes severe irritation.
Skin	Causes skin irritation. May cause defatting, drying and cracking of the skin. Prolonged and repeated contact may lead to dermatitis. Prolonged or widespread skin contact may result in the absorption of potentially harmful amounts of material.
Inhalation	Material is irritating to mucous membranes and upper respiratory tract. Can cause central nervous system effects including, dizziness, weakness, fatigue, nausea, headache, euphoria, tremors, drowsiness, loss of appetite, and possible unconsciousness and death. Chemical pneumonitis, peripheral nerve damage and pulmonary edema. Heptane vapors are narcotic.
Ingestion	Causes gastrointestinal irritation. Nausea, vomiting, diarrhea and headache. Aspiration of material into the lungs can cause chemical pneumonitis or pulmonary edema which can be fatal.

**Section V. Toxicological Properties**

**Effects of Chronic Overexposure** Peripheral neuropathy and central nervous system depression. Repeated or prolonged skin contact may cause dermatitis. Carcinogenic effects: Not available. Mutagenic effects: Not available. Teratogenic effects: Not available. Toxicity of the product to the reproductive system: Not available. To the best of our knowledge, the chemical, physical, and toxicity of this substance has not been fully investigated. Medical conditions which may be aggravated: Individuals with preexisting diseases of the skin, eye, liver, kidney, or respiratory system may be more susceptible to the toxicity of overexposure to this product.

**Section VI. First Aid Measures**

**Eye contact** IMMEDIATELY flush eyes with copious quantities of water for at least 15 minutes holding lids apart to ensure flushing of the entire surface. Seek immediate medical attention.

**Skin contact** Immediately flush skin with plenty of water and soap for at least 15 minutes while removing contaminated clothing and shoes. Call a physician. Wash contaminated clothing before reusing.

**Inhalation** Remove patient to fresh air. Administer approved oxygen supply if breathing is difficult. Administer artificial respiration or CPR if breathing has ceased. Seek immediate medical attention.

**Ingestion** DO NOT induce vomiting. Seek immediate medical attention. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomitus. Never give anything by mouth to an unconscious or convulsing person.

**Section VII. Reactivity Data**

**Stability** Stable. Conditions to avoid: High temperatures, sparks, open flames and all other sources of ignition, contamination.

**Hazardous decomp. products** Not available.

**Incompatibility** Acids, phosphorus, chlorine, chlorosulfonic acid, halogens, bases, oxidizing agents. May attack some forms of plastics, rubbers and coatings.

**Reaction Products** Not available. Hazardous polymerization will not occur.

## Section VIII. Preventive Measures

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<b>Protective Clothing in case of spill and leak</b>	Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves.
<b>Spill and leak</b>	Evacuate the area. Eliminate all sources of ignition and ensure that all handling equipment is electrically grounded. Absorb on sand or vermiculite and place in a closed container for disposal. Use non-sparking tools. Ventilate area and wash spill site after material pick up is complete. DO NOT empty into drains. DO NOT touch damaged container or spilled material. Runoff to sewer may create fire or explosion hazard.
<b>Waste disposal</b>	Burn in a chemical incinerator equipped with an after burner and scrubber. According to all applicable regulations. Harmful to aquatic life at high concentrations. Can be dangerous if allowed to enter drinking water intakes. Do not contaminate domestic or irrigation water supplies, lakes, streams, ponds, or rivers.
<b>Storage and Handling</b>	Store in a cool place away from heated areas, sparks, and flame. Store in a well ventilated area. Store away from incompatible materials. Do not add any other material to the container. Do not wash down the drain. Do not breathe gas/fumes/vapor/spray. In case of insufficient ventilation, wear suitable respiratory equipment. Keep away from direct sunlight or strong incandescent light. Keep container tightly closed and dry. Manipulate under an adequate fume hood. Take precautionary measures against electrostatic discharges. Ground the container while dispensing. Ground all equipment containing material. Use only explosion proof equipment. Use non-sparking tools. Watch for accumulation in low confined areas. Empty containers may contain a hazardous residue. Do not use pressure to dispense. May develop pressure; vent periodically. Handle and open container with care. Take off immediately all contaminated clothing. This product must be manipulated by qualified personnel. Do not get in eyes, on skin, or on clothing. Wash well after use. In accordance with good storage and handling practices. Do not allow smoking and food consumption while handling. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

## Section IX. Protective Measures

<b>Protective clothing</b>	Splash goggles. Impervious polyvinyl alcohol gloves, apron, coveralls, and/or other resistant protective clothing. Sufficient to protect skin. Prior to use, user should confirm impermeability. Have available and use as appropriate: face shields, rubber suits, and boots. A OSHA/MSHA jointly approved respirator is advised in the absence of proper environmental controls. If more than TLV, do not breathe the vapor. Wear self-contained breathing apparatus. Do not wear contact lenses. Make eye bath and emergency shower available. Ensure that eyewash station and safety shower is proximal to the work-station location.
<b>Engineering controls</b>	Use only in a chemical fume hood to keep airborne levels below recommended exposure limits. Use explosion-proof ventilation equipment. Do not use in unventilated spaces. Vapors are heavier than air and may travel along the ground or pool in low areas. Because vapor is heavy, ventilation must be provided at floor level as well as at higher levels.

## Section X. Other Information

<b>Special Precautions or comments</b>	Extremely flammable liquid! Harmful liquid! Irritant! Do not breathe vapor. Avoid all contact with the product. Avoid prolonged or repeated exposure. Use only in a chemical fume hood. Keep away from heat, sparks and flame. Take precautionary measures against static discharges. Liquid can accumulate static charge by flow or agitation. Use non-sparking tools. Bond and ground transfer containers and equipment to avoid static accumulation. Handle and open container with care. Container should be opened only by a technically qualified person. RTECS NO: MI7700000 (Heptane).
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NFPA

Prepared by MSDS Department/Département de F.S..

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) Telephone# (514) 489-5711

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