Material Safety Data Sheet

HAZTECH SYSTEMS,™ INC.

NFPA

HMIS

Health Hazard	2
Fire Hazard	3
Reactivity	0

PPE (See Section 15)

Section 1. Chemical Product and Company Identification

Common Name/ Trade Name: Hexane

Manufacturer: HazTech Systems, Inc.
P.O. Box 929
Mariposa, CA 95338

Commercial Name: Not available.

Synonym: Not available.

Chemical Name: Hexane

Chemical Family: Solvent.

Chemical Formula: C6-H14

Supplier: Spectrum Chemical Mfg. Corp.
14422 S. San Pedro St.
Gardena, CA 90248

Code: RE2079

CAS #: 110-54-3

RTECS: MN9275000

TSCA: TSCA 9(b)

CI #: Not applicable.

In case of emergency contact CHEMTREC (24 hours) at 800-424-9300

HazTech Systems, Inc. 800-337-2497

Spectrum Chemical Mfg. Corp. 310-516-8000

Section 2. Composition and Information on Ingredients

		Exposure Limits			
Name	CAS #	TWA (mg/m3)	STEL	CEIL (mg/m3)	% by Weight
Hexane	110-54-3	176			98.5 - 99.8

Toxicological Data on Ingredients: Hexane:
ORAL (LD_{50}) Acute: 25000 mg/kg (Rat).

Section 3. Hazards Identification

Potential Acute Health Effects: Hazardous in case of skin contact (permeator), of ingestion, of inhalation. Slightly hazardous in case of skin contact (irritant), of eye contact (irritant).

Potential Chronic Health Effects:
CARCINOGENIC EFFECTS: Not available.
MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast.
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Not available.
The substance may be toxic to peripheral nervous system, skin, central nervous system (CNS).Repeated or prolonged exposure to the substance can produce target organs damage.

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Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention if irritation occurs.

Skin Contact Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.

Serious Skin Contact Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

Inhalation If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.

Serious Inhalation Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Serious Ingestion Not available.

Section 5. Fire and Explosion Data

Flammability Flammable.

Auto-Ignition Temperature 225∞C (437∞F)

Flash Point CLOSED CUP: -22.5∞C (-8.5∞F). (TAG)

Flammable Limits LOWER: 1.15% UPPER: 7.5%

Products of Combustion These products are carbon oxides (CO, C02).

Fire Hazards in Presence of Various Substances Highly flammable in presence of open flames and sparks, of heat. Non-flammable in presence of shocks.

Explosion Hazards in Presence of Various Substances Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions Flammable liquid, insoluble in water. SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray or fog.

Special Remarks on Fire Hazards Extremely flammable liquid and vapor. Vapor may cause flash fire.

Special Remarks on Explosion Hazards Not available.

Section 6. Accidental Release Measures

Small Spill Absorb with an inert material and put the spilled material in an appropriate waste disposal.

Large Spill Flammable liquid, insoluble in water. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

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Section 7. Handling and Storage

Precautions Keep locked up. Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Avoid contact with skin. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents.

Storage Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

Section 8. Exposure Controls/Personal Protection

Engineering Controls Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection Safety glasses. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves (impervious).

Personal Protection in Case of a Large Spill Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be a used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits TWA: 500 (ppm) from OSHA (PEL) [United States] Inhalation
TWA: 1800 (mg/m3) from OSHA (PEL) [United States] Inhalation
TWA: 176 (mg/m3) from ACGIH (TLV) [United States] SKIN
TWA: 50 (ppm) from ACGIH (TLV) [United States] SKIN
TWA: 500 STEL: 1000 (ppm) from ACGIH (TLV) [United States] Inhalation
TWA: 1760 STEL: 3500 (mg/m3) from ACGIH (TLV) [United States] Inhalation
Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid.	Volatility	Not available.
Molecular Weight	86.18g/mole	Odor Threshold	130 ppm
pH (1% Solution in Water)	Not applicable.	Water/Oil Dist. Coeff.	The product is more soluble in oil; log(oil/water) = 3.9
Boiling Point	68∞C(154.4∞F)	Ionicity (in Water)	Not available.
Melting Point	-95∞C(-139∞F)	Dispersion Properties	See solubility in water, diethyl ether, acetone.
Critical Temperature	Not available.	Solubility	Soluble in diethyl ether, acetone. Insoluble in cold water, hot water.
Specific Gravity	0.66 (Water-1)	Odor	Gasoline-like or petroleum-like (Slight.)
Vapor Pressure	17.3kPa(@ 20∞C)	Taste	Not available.
Vapor Density	2.97 (Air=1)	Color	Clear Colorless.

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	Heat, ignition sources, incompatibles.
Incompatability with Various Substances	Reactive with oxidizing agents.
Corrosivity	Not available.
Special Remarks on Corrosivity	Hexane can react vigorously with strong oxidizers (e.g. chlorine, bromine, fluorine).
Polymerization	Will not occur.

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Section 11. Toxicological Information

Route of Entry Absorbed through skin. Dermal contact. Inhalation. Ingestion.

Toxicity to Animals WARNING: THE LC_{50} VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral toxicity (LD_{50}): 25000 mg/kg [Rat].

Acute toxicity of the gas (LC_{50}): 48000 ppm 4 hours [Rat].

Chronic Effects on Humans MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast.May cause damage to the following organs: peripheral nervous system, skin, central nervous system (CNS).

Other Toxic Effects on Humans Very hazardous in case of ingestion, of inhalation. Hazardous in case of skin contact (permeator).

Slightly hazardous in case of skin contact (irritant).

Special Remarks on Toxicity to Animals Not available.

Special Remarks on Chronic Effects on Humans May cause adverse reproductive effects based on animal data.May affect genetic material. May be tumorigenic based on animal data. Passes through the placental barrier in animal.

Special Remarks on Other Toxic Effects on Humans Acute Potential Health Effects:Skin: May cause mild skin irritation. It can be absorbed through the skin in harmful amounts.Eyes: May cause mild eye irritation.Inhalation: May be harmful if inhaled. Inhalation of vapors may cause respiratory tract irritation.Overexposure may affect, brain, spinal cord, behavior/central and peripheral nervous systems(lightheadness, dizziness, hallucinations, paralysis, blurred vision, memory loss, headache, euphoria, generalanesthetic, muscle weakness, numbness of the extremeties, asphyxia, unconciousness and possible death),metabolism, respiration, blood, cardiovascular system, gastrointestinal system (nausea)Ingestion: May be harmful if swallowed. May cause gastrointestinal tract irritation with abdominal pain andnausea. May also affect the liver, blood, brain, peripheral and central nervous systems. Symptoms of overexposure by ingestion are similar to that of overexposure by inhalation.

Section 12. Ecological Information

Ecotoxicity Not available.

BOD5 and COD Not available.

Products of Biodegradation Possibly hazardous short term degradation products are not likely. However, long term degradation productsmay arise.

Toxicity of the Products of Biodegradation The product itself and its products of degradation are not toxic.

Special Remarks on the Products of Biodegradation Not available.

Section 13. Disposal Considerations

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

Section 14. Transport Information

DOT Classification CLASS 3: Flammable liquid.

Identification : Hexane UNNA: 1208 PG: II

Special Provisions for Transport Not available.

DOT (Pictograms)

Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations Connecticut carcinogen reporting list.: Hexane Illinois toxic substances disclosure to employee act: Hexane Illinois chemical safety act: Hexane New York release reporting list: Hexane Pennsylvania RTK: Hexane Florida: Hexane Minnesota: Hexane Massachusetts RTK: Hexane New Jersey: Hexane New Jersey spill list: Hexane Louisiana spill reporting: Hexane TSCA 8(b) inventory: Hexane SARA 313 toxic chemical notification and release reporting: Hexane CERCLA: Hazardous substances.: Hexane: 5000 lbs. (2268 kg)

California Proposition 65 Warnings

Other Regulations OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

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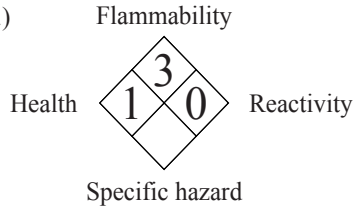
Other Classifications WHMIS (Canada) CLASS B-2: Flammable liquid with a flash point lower than 37.8CC (100∞F).
CLASS D-2B: Material causing other toxic effects (TOXIC).
DSCL (EEC) R11- Highly flammable. S2- Keep out of the reach of children.

HMIS (U.S.A.)

Health Hazard	2
Fire Hazard	3
Reactivity	0
Personal Protection	g

National Fire Protection Association (U.S.A.)



WHMIS (Canada) (Pictograms)

DSCL (Europe) (Pictograms)

TDG (Canada) (Pictograms)

ADR (Europe) (Pictograms)

Protective Equipment


Gloves (impervious).


Lab coat.


Vapor respirator. be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.


Safety glasses.

Section 16. Other Information

Catalog Number(s) MSDS Code H3134

References Not available.

Other Special Considerations Not available.

Validated by Sonia Owen 3/22/2002.

Verified by Sonia Owen. Printed 7/8/2002.

Call 1-800-543-5487

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.