



Material Safety Data Sheet

NFPA	HMIS	Personal Protective Equipment						
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Health Hazard	2							
Fire Hazard	3							
Reactivity	0							
		See Section 15.						

Section 1. Chemical Product and Company Identification

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Common Name/Trade Name	Octane	Catalog Number(s).	YY285, O2021
Manufacturer	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	CAS#	111-65-9
Commercial Name(s)	Not available.	RTECS	RG8400000
Synonym	n-Octane	TSCA	TSCA 8(b) inventory: Octane
Chemical Name	Octane	CI#	Not available.
Chemical Family	Not available.	IN CASE OF EMERGENCY CHEMTREC (24hr) 800-424-9300 CALL (310) 516-8000	
Chemical Formula	C ₈ H ₁₈		
Supplier	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248		

Section 2. Composition and Information on Ingredients

		Exposure Limits			
Name	CAS #	TWA (mg/m ³)	STEL (mg/m ³)	CEIL (mg/m ³)	% by Weight
1) Octane	111-65-9	75		385	100

Toxicological Data on Ingredients

Octane:
VAPOR (LC50): Acute: 118000 mg/m³ 4 hours [Mouse].

Section 3. Hazards Identification

Potential Acute Health Effects	Hazardous in case of eye contact (irritant). Slightly hazardous in case of skin contact (irritant, permeator), of ingestion, of inhalation.
Potential Chronic Health Effects	CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage.

Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
Skin Contact	In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Serious Skin Contact	Not available.
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	If swallowed, do NOT induce vomiting. Never give anything by mouth to an unconscious person. Aspiration hazard if swallowed- can enter lungs and cause damage. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention.
Serious Ingestion	Not available.

Section 5. Fire and Explosion Data

Flammability of the Product	Flammable.
Auto-Ignition Temperature	206°C (402.8°F)
Flash Points	CLOSED CUP: 13.33°C (56°F). (TAG) OPEN CUP: 22°C (71.6°F).
Flammable Limits	LOWER: 1% UPPER: 6.5%
Products of Combustion	These products are carbon oxides (CO, CO2).
Fire Hazards in Presence of Various Substances	Highly flammable in presence of open flames and sparks, of heat.
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. Slightly explosive in presence of heat.
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	Vapor may travel considerable distance to source of ignition and flash back. Vapors may form explosive mixtures with air.
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.

Section 7. Handling and Storage

Precautions	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 eyes. Wear suitable protective clothing. 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 workstation location.
Personal Protection	Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Exposure Limits	<p>TWA: 500 (ppm) from OSHA (PEL) [United States] Inhalation Total. TWA: 2350 (mg/m³) from OSHA (PEL) [United States] Inhalation Total. TWA: 75 CEIL: 385 from NIOSH [United States] Inhalation Total. CEIL: 1800 (mg/m³) from NIOSH [United States] Inhalation Total. TWA: 300 from ACGIH (TLV) [United States] Inhalation Total. TWA: 300 STEL: 375 (ppm) [United Kingdom (UK)] Inhalation Total. TWA: 1450 (mg/m³) [United Kingdom (UK)] Inhalation Total. TWA: 300 STEL: 375 (ppm) [Canada] Inhalation Total. TWA: 1402 STEL: 1752 (mg/m³) [Canada] Inhalation Total.</p> <p>Consult local authorities for acceptable exposure limits.</p>

Section 9. Physical and Chemical Properties

Physical state and appearance	Liquid.	Odor	gasoline-like
Molecular Weight	114.23 g/mole	Taste	Not available.
pH (1% soln/water)	Not applicable.	Color	Clear Colorless
Boiling Point	125.6°C (258.1°F)		
Melting Point	-56.8°C (-70.2°F)		
Critical Temperature	296°C (564.8°F)		
Specific Gravity	0.7028 (Water = 1)		
Vapor Pressure	1.5 kPa (@ 20°C)		
Vapor Density	3.9 (Air = 1)		
Volatility	Not available.		
Odor Threshold	150 ppm		
Water/Oil Dist. Coeff.	The product is more soluble in oil; log(oil/water) = 5.2		
Ionicity (in Water)	Not available.		
Dispersion Properties	See solubility in water, diethyl ether, acetone.		

Solubility Soluble in diethyl ether, acetone.
Insoluble in cold water.
Miscible with gasoline.
Soluble in Chloroform.
Solubility in Water: 0.7 ug/ml in water.
Solubility in Benzene: >10%
Solubility in Ethanol: >10%
Solubility in Petroleum Ether: >10%

Section 10. Stability and Reactivity Data

Stability The product is stable.

Instability Temperature Not available.

Conditions of Instability Heat, ignition sources (flames, ignition sources, sparks), incompatible materials

Incompatibility with various substances Reactive with oxidizing agents

Corrosivity Non-corrosive in presence of glass

Special Remarks on Reactivity Not available.

Special Remarks on Corrosivity Not available.

Polymerization Will not occur.

Section 11. Toxicological Information

Routes of Entry Absorbed through skin. Eye contact. Inhalation. Ingestion.

Toxicity to Animals **WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE.**
Acute toxicity of the vapor (LC50): 118000 mg/m³ 4 hours [Mouse].

Chronic Effects on Humans May cause damage to the following organs: central nervous system (CNS).

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

Special Remarks on Toxicity to Animals Not available.

Special Remarks on Chronic Effects on Humans Not available.

Special Remarks on other Toxic Effects on Humans Acute Potential Health Effects
Skin: May cause skin irritation. It may be absorbed through the skin in harmful amounts.
Eyes: Causes mild to moderate eye irritation.
Inhalation: May cause respiratory tract (nose, throat, lungs) irritation. Inhalation of high concentration of mist or vapor may cause headache, nausea, vomiting, central nervous system depression with headache, dizziness, lightheadness, giddiness, vertigo, drowsiness, confusion, anesthetic stupor, and passing out. May also cause cardiac arrhythmias.
Ingestion: May cause nausea, vomiting. Aspiration may result in pulmonary damage. It may affect behavior/central nervous system with symptoms similar to acute inhalation.
Chronic Potential Health Effects
Skin: Repeated or prolonged skin contact may cause drying and cracking of skin.
Ingestion: Repeated or prolonged ingestion may affect the liver, kidneys.
Inhalation: Repeated or prolonged inhalation may affect the liver, kidneys, behavior/central nervous system (see acute 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 products may 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.
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Section 14. Transport Information

DOT Classification	CLASS 3: Flammable liquid.
Identification	UNNA: 1262 : Octane PG: II
Special Provisions for Transport	Not available.
DOT(Pictograms)	

Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations	Connecticut hazardous material survey.: Octane Illinois toxic substances disclosure to employee act: Octane Rhode Island RTK hazardous substances: Octane Pennsylvania RTK: Octane Florida: Octane Minnesota: Octane Massachusetts RTK: Octane Massachusetts spill list: Octane New Jersey: Octane California Director's List of Hazardous Substances: Octane TSCA 8(b) inventory: Octane
California Proposition 65 Warnings	California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found. California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.
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(EINECS No. 203-892-1). Canada: Listed on Canadian Domestic Substance List (DSL). China: Listed on National Inventory. Japan: Listed on National Inventory (ENCS). Korea: Listed on National Inventory (KECI). Philippines: Listed on National Inventory (PICCS). Australia: Listed on AICS.

Other Classifications

WHMIS (Canada)

CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).
CLASS D-2B: Material causing other toxic effects (TOXIC).

DSCL (EEC)

R11- Highly flammable.
R38- Irritating to skin.
R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65- Harmful: may cause lung damage if swallowed.

S9- Keep container in a well-ventilated place.
S16- Keep away from sources of ignition - No smoking.
S29- Do not empty into drains.
S33- Take precautionary measures against static discharges.
S60- This material and its container must be disposed of as hazardous waste.
S61- Avoid release to the environment. Refer to special instructions/Safety data sheets.
S62- If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

HMIS (U.S.A.)

Health Hazard	2
Fire Hazard	3
Reactivity	0
Personal Protection	h

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

Health



Flammability

Reactivity

Specific hazard

WHMIS (Canada) (Pictograms)



DSCL (Europe) (Pictograms)



TDG (Canada) (Pictograms)



ADR (Europe) (Pictograms)



Protective Equipment



Gloves.



Lab coat.



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



Splash goggles.

Section 16. Other Information**MSDS Code** O3007**References** Not available.**Other Special Considerations** Major Uses: Chemical agent in petroleum industry; industrial solvent, lacquer diluent; carrier solven in the manufacturing of polymers; blowing agent for foam rubber used in rocket propellants; organic synthesis; azeotropic distillations.

Validated by Sonia Owen on 4/2/2008.

Verified by Sonia Owen.

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CALL (310) 516-8000

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.