

GARDENA, CA
NEW BRUNSWICK, NJ

Material Safety Data Sheet

NFPA	HMIS	Personal Protective Equipment						
	<table><tr><td>Health Hazard</td><td>2</td></tr><tr><td>Fire Hazard</td><td>2</td></tr><tr><td>Reactivity</td><td>0</td></tr></table>	Health Hazard	2	Fire Hazard	2	Reactivity	0	 See Section 15.
Health Hazard	2							
Fire Hazard	2							
Reactivity	0							

Section 1. Chemical Product and Company Identification

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Common Name/ Trade Name	2,5-Hexanedione	Catalog Number(s).	H2084
		CAS#	110-13-4
Manufacturer	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	RTECS	MO3150000
		TSCA	TSCA 8(b) inventory: 2,5-Hexanedione
Commercial Name(s)	Not available.	CI#	Not available.
Synonym	1,2-Diacetylene; 2,5-Diketohexane; 2,5-Hexandione; Acetone, acetonyl-; Acetonyl acetone; alpha,beta-Diacetylene; Diacetonyl;	IN CASE OF EMERGENCY CHEMTREC (24hr) 800-424-9300 CALL (310) 516-8000	
Chemical Name	2,5-Hexanedione		
Chemical Family	Not available.		
Chemical Formula	C ₆ H ₁₀ O ₂		
Supplier	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248		

Section 2. Composition and Information on Ingredients

Name	CAS #	Exposure Limits			% by Weight
		TWA (mg/m ³)	STEL (mg/m ³)	CEIL (mg/m ³)	
1) {2,5-}Hexanedione	110-13-4				100

Toxicological Data on Ingredients	2,5-Hexanedione:				
	ORAL (LD50):	Acute: 1600 mg/kg [Rat]. 2386 mg/kg [Mouse].			
	DERMAL (LD50):	Acute: 6400 mg/kg [Guinea pig].			
	VAPOR (LC50):	Acute: 2000 ppm 4 hours [Rat].			

Section 3. Hazards Identification

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

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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. Cold water may be used. 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. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Serious Skin Contact	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Serious Inhalation	Not available.
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.
Serious Ingestion	Not available.

Section 5. Fire and Explosion Data

Flammability of the Product	Combustible.
Auto-Ignition Temperature	400°C (752°F) - 499 C.
Flash Points	CLOSED CUP: 78.889°C (174°F).
Flammable Limits	LOWER: 1.5%
Products of Combustion	These products are carbon oxides (CO, CO2).
Fire Hazards in Presence of Various Substances	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.
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
Special Remarks on Fire Hazards	Not available.
Special Remarks on Explosion Hazards	Not available.

Section 6. Accidental Release Measures

Small Spill	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill	Combustible material. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

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. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents.
Storage	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. Synthetic apron. Gloves (impervious). Respiratory protection is not necessary for normal handling. Good room ventilation or use of local exhaust (fume hood) is sufficient. Use a vapor respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapor, inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Exposure Limits	Not available.

Section 9. Physical and Chemical Properties

Physical state and appearance	Liquid.	Odor	Odorless.
Molecular Weight	114.15 g/mole	Taste	Not available.
pH (1% soln/water)	Not available.	Color	Clear Brown. (Light.)
Boiling Point	191°C (375.8°F) - 192 C		
Melting Point	Not available.		
Critical Temperature	Not available.		
Specific Gravity	0.973 - 1 (Water = 1)		
Vapor Pressure	Not available.		
Vapor Density	3.9 (Air = 1)		
Volatility	Not available.		
Odor Threshold	Not available.		
Water/Oil Dist. Coeff.	Not available.		
Ionicity (in Water)	Not available.		
Dispersion Properties	See solubility in water.		
Solubility	Soluble in cold water.		

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	Heat, ignition sources, incompatible materials
Incompatibility with various substances	Reactive with oxidizing agents.
Corrosivity	Not available.

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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.
Toxicity to Animals	WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral toxicity (LD50): 1600 mg/kg [Rat]. Acute dermal toxicity (LD50): 6400 mg/kg [Guinea pig]. Acute toxicity of the vapor (LC50): 2000 4 hours [Rat].
Chronic Effects on Humans	May cause damage to the following organs: central nervous system (CNS).
Other Toxic Effects on Humans	Hazardous in case of skin contact (irritant). Slightly hazardous in case of skin contact (permeator), of ingestion, of inhalation.
Special Remarks on Toxicity to Animals	LD50[Guinea Pig] - Route: Skin; Dose: 6.6 ml/kg
Special Remarks on Chronic Effects on Humans	May cause adverse reproductive effects. May affect genetic material (mutagenic)
Special Remarks on other Toxic Effects on Humans	Acute Potential Health Effects: Skin: Causes skin irritation. Eyes: Causes eye irritation. Inhalation: Can cause respiratory tract irritation. Ingestion: Can cause gastrointestinal tract irritation with nausea, vomiting, diarrhea. It may affect behavior/central nervous system/peripheral nervous system (somnolence, ataxia, muscle weakness). Chronic Potential Health Effects: Ingestion: Prolonged or repeated ingestion may cause weight loss. It may affect behavior/central nervous system/peripheral nervous system, brain, spinal cord, urinary system.

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 products of degradation are less toxic than the product itself.
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 Not a DOT controlled material (United States).

Identification Not applicable.

Special Provisions for Transport Not applicable.

DOT (Pictograms)

**Section 15. Other Regulatory Information and Pictograms**

Federal and State Regulations TSCA 8(b) inventory: 2,5-Hexanedione

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. 203-738-3).
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-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).
CLASS D-2B: Material causing other toxic effects (TOXIC).

DSCL (EEC) R22- Harmful if swallowed.
R36/38- Irritating to eyes and skin.
S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S37/39- Wear suitable gloves and eye/face protection.
S46- If swallowed, seek medical advice immediately and show this container or label.

HMIS (U.S.A.)

Health Hazard	2
Fire Hazard	2
Reactivity	0
Personal Protection	(C)

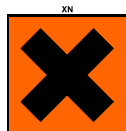
National Fire Protection Association (U.S.A.)

Health  Flammability
Reactivity
Specific hazard

WHMIS (Canada) (Pictograms)



DSCL (Europe) (Pictograms)



TDG (Canada)
(Pictograms)**ADR (Europe)**
(Pictograms)**Protective Equipment**

Gloves (impervious).



Synthetic apron.

Wear appropriate respirator when
ventilation is inadequate.

Safety glasses.

Section 16. Other Information**MSDS Code** 3210A**References** Not available.**Other Special
Considerations** Not available.

Validated by Sonia Owen on 8/26/2009.

Verified by Sonia Owen.

Printed 8/26/2009.

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.