

Material Safety Data Sheet

NFPA	HMIS	Personal Protective Equipment						
	<table><tr><td>Health Hazard</td><td>3</td></tr><tr><td>Fire Hazard</td><td>3</td></tr><tr><td>Reactivity</td><td>0</td></tr></table>	Health Hazard	3	Fire Hazard	3	Reactivity	0	 See Section 15.
Health Hazard	3							
Fire Hazard	3							
Reactivity	0							

Section 1. Chemical Product and Company Identification

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Common Name/ Trade Name	Diisopropylamine	Catalog Number(s).	D2282
Manufacturer	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	CAS#	108-18-9
Commercial Name(s)	Not available.	RTECS	IM4025000
Synonym	N-(1-Methylethyl)-2-propanamine; 2-Propanamine, N-(1-methylethyl)-	TSCA	TSCA 8(b) inventory: Diisopropylamine
Chemical Name	Diisopropylamine	CI#	Not available.
Chemical Family	Not available.	IN CASE OF EMERGENCY CHEMTREC (24hr) 800-424-9300 CALL (310) 516-8000	
Chemical Formula	C ₆ H ₁₅ N		
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) Diisopropylamine	108-18-9	5			100

Toxicological Data on Ingredients

Diisopropylamine:

ORAL (LD50): Acute: 770 mg/kg [Rat]. 2120 mg/kg [Mouse]. 4700 mg/kg [Rabbit].
DERMAL (LD50): Acute: >10000 mg/kg [Rabbit].
VAPOR (LC50): Acute: 4200 mg/m³ 2 hours [Mouse]. 4800 mg/m³ 2 hours [Rat]

Section 3. Hazards Identification

Potential Acute Health Effects Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion. Hazardous in case of inhalation. Slightly hazardous in case of skin contact (corrosive, permeator), of eye contact (corrosive). Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

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 lungs, mucous membranes, upper respiratory tract, skin, eyes.
 Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.

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 immediately.

Skin Contact

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

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 immediately.

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. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

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**

Flammable.

Auto-Ignition Temperature

316°C (600.8°F)

Flash Points

CLOSED CUP: -10 to -7°C (14-19.4°F). OPEN CUP: - 1°C (30.2°F).

Flammable Limits

LOWER: 0.8% UPPER: 7.1%

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, soluble or dispersed in water.
 SMALL FIRE: Use DRY chemical powder.
 LARGE FIRE: Use alcohol foam, water spray or fog.

Special Remarks on Fire Hazards

When heated to decomposition it emits toxic fumes of nitrogen oxides.
 Vapor may travel considerable distance to source of ignition and flash back. May form explosive mixtures with air.

Special Remarks on Explosion Hazards

Vapors may form explosive mixtures with air.

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.
Large Spill	Flammable liquid. Corrosive liquid. 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. Use water spray curtain to divert vapor drift. 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. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. 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, acids.
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	Face shield. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. Boots.
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	TWA: 5 (ppm) from OSHA (PEL) [United States] SKIN TWA: 5 (ppm) from ACGIH (TLV) [United States] SKIN TWA: 5 from NIOSH [United States] SKIN TWA: 20 (mg/m³) from NIOSH [United States] SKIN TWA: 5 (ppm) [United Kingdom (UK)] SKIN TWA: 5 (ppm) [Belgium] SKIN TWA: 5 (ppm) [Finland] SKIN TWA: 20 (mg/m³) from OSHA (PEL) [United States] SKIN TWA: 5 STEL: 10 (ppm) [Norway] SKIN TWA: 5 (ppm) [United Kingdom (UK)] TWA: 21 (mg/m³) [United Kingdom (UK)] TWA: 5 (ppm) [Canada] TWA: 21 (mg/m³) [Canada] Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical state and appearance	Liquid.	Odor	Ammoniacal. Fish-like.
Molecular Weight	101.19 g/mole	Taste	Not available.
pH (1% soln/water)	Not available.	Color	Colorless.
Boiling Point	84°C (183.2°F)		
Melting Point	-61°C (-77.8°F)		
Critical Temperature	249°C (480.2°F)		
Specific Gravity	0.7169 (Water = 1)		
Vapor Pressure	6.9-8 kPa (@ 20°C)		
Vapor Density	3.5 (Air = 1)		
Volatility	Not available.		

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Diisopropylamine		Page Number: 4
Odor Threshold	Not available.	
Water/Oil Dist. Coeff.	The product is more soluble in oil; log(oil/water) = 1.4	
Ionicity (in Water)	Not available.	
Dispersion Properties	See solubility in water, diethyl ether, acetone.	
Solubility	Easily soluble in diethyl ether, acetone. Partially soluble in cold water. Very soluble in benzene, ethanol.	

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, acids.	
Corrosivity	Non-corrosive in presence of glass.	
Special Remarks on Reactivity	It will react vigorously with oxidizing materials. It will also react with strong acids. Diisopropylamine may attack some forms of plastic.	
Special Remarks on Corrosivity	Not available.	
Polymerization	Will not occur.	

Section 11. Toxicological Information		
Routes of Entry	Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.	
Toxicity to Animals	EXPOSURE. Acute oral toxicity (LD50): 770 mg/kg [Rat]. Acute dermal toxicity (LD50): >10000 mg/kg [Rabbit]. Acute toxicity of the vapor (LC50): 4200 mg/m³ 2 hours [Mouse]. 4800 mg/m³ 2 hours [Ra	
Chronic Effects on Humans	MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast. May cause damage to the following organs: lungs, mucous membranes, upper respiratory tract, skin, eyes.	
Other Toxic Effects on Humans	Very hazardous in case of skin contact (irritant), of ingestion. Hazardous in case of inhalation (lung corrosive). Slightly hazardous in case of skin contact (corrosive, permeator), of eye contact (corrosive).	
Special Remarks on Toxicity to Animals	Not available.	
Special Remarks on Chronic Effects on Humans	May affect genetic material (mutagenic)	
Special Remarks on other Toxic Effects on Humans	Acute Potential Health Effects: Skin: It causes severe skin irritation and burns. Causes smarting of skin and first-degree burns on short exposure; may cause second-degree burns on long exposure. It may be absorbed through the skin with possible systemic effects. Eyes: Contact with liquid causes severe eye irritation and burns with possible loss of vision. Contact with vapors causes irritation disturbances of vision or visual impairment Inhalation: It can cause respiratory tract (nose, throat, lungs) and mucous membrane irritation with coughing and/or shortness of breath, and possible burns to the respiratory tract. Higher exposures can cause pulmonary edema. Inhalation of vapors can cause headache, nausea, vomiting, dizziness or coma, or suffocation. May also cause vision problems and cause pulmonary edema. Ingestion: May be harmful if swallowed. Causes gastrointestinal tract irritation with sore throat, vomiting, diarrhea, burns to the mouth, throat and stomach. Chronic Potential Health Effects: Skin: Repeated or prolonged skin contact may cause dermatitis	

Section 12. Ecological Information

Ecotoxicity	Ecotoxicity in water (LC50): 20 mg/l 96 hours [Algae (Pseudokirchneriella subcapitata)]. 25.8 ppm 24 hours [Daphnia (daphnia magna)]. 150-223 mg/l 96 hours [Fish (Brachydanio rerio)]. 420-560 mg/l 96 hours [Fish (Oryzias latipes)]. 1000 mg/l 96 hours [Fish (Poecilia reticulata)]. 37 mg/l 96 hours [Fish (Oncorhynchus mykiss)].
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	CLASS 3: Flammable liquid. Class 8: Corrosive material
Identification	UNNA: 1158 : Diisopropylamine PG: II
Special Provisions for Transport	Not available.
DOT (Pictograms)	 

Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations	Pennsylvania RTK: Diisopropylamine Minnesota: Diisopropylamine Massachusetts RTK: Diisopropylamine Massachusetts spill list: Diisopropylamine New Jersey: Diisopropylamine California Director's List of Hazardous Substances: Diisopropylamine TSCA 8(b) inventory: Diisopropylamine
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. 203-558-5). 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-1B: Material causing immediate and serious toxic effects (TOXIC). CLASS E: Corrosive liquid. DSCL (EEC)

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R11- Highly flammable.
 R20/22- Harmful by inhalation and if swallowed.
 R34- Causes burns.

S16- Keep away from sources of ignition - No smoking.
 S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.
 S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

HMIS (U.S.A.)

Health Hazard	3
Fire Hazard	3
Reactivity	0
Personal Protection	

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.



Full suit.



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



Face shield.

Section 16. Other Information**MSDS Code** 6500D**References** Not available.**Other Special Considerations** Not available.

Validated by Sonia Owen on 7/5/2012.

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.