



Material Safety Data Sheet

<p>NFPA</p> 	<p>HMIS</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="background-color: #00FFFF;">Health Hazard</td> <td style="text-align: center; font-weight: bold;">2</td> </tr> <tr> <td style="background-color: #FFC0CB;">Fire Hazard</td> <td style="text-align: center; font-weight: bold;">3</td> </tr> <tr> <td style="background-color: #FFFF00;">Reactivity</td> <td style="text-align: center; font-weight: bold;">0</td> </tr> </table>	Health Hazard	2	Fire Hazard	3	Reactivity	0	<p>Personal Protective Equipment</p>  <p>See Section 15.</p>
Health Hazard	2							
Fire Hazard	3							
Reactivity	0							

Section 1. Chemical Product and Company Identification		<i>Page Number: 1</i>
Common Name/Trade Name	Allyl Chloride	
Manufacturer	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	Catalog Number(s) YY429, A2692
Commercial Name(s)	Not available.	CAS# 107-05-1
Synonym	3-Chloropropene; 3-Chloroprene	RTECS UC7350000
Chemical Name	Allyl Chloride	TSCA TSCA 8(b) inventory: Allyl Chloride
Chemical Family	Not available.	CI# Not available.
Chemical Formula	Not available.	<p style="text-align: center; margin: 0;">IN CASE OF EMERGENCY CHEMTREC (24hr) 800-424-9300</p> <p style="margin: 0;">CALL (310) 516-8000</p>
Supplier	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	

Section 2. Composition and Information on Ingredients					
Name	CAS #	<i>Exposure Limits</i>			% by Weight
		TWA (mg/m ³)	STEL (mg/m ³)	CEIL (mg/m ³)	
1) Allyl Chloride	107-05-1	1	2		100
Toxicological Data on Ingredients	<p>Allyl Chloride:</p> <p>ORAL (LD50): Acute: 460 mg/kg [Rat]. 425 mg/kg [Mouse].</p> <p>DERMAL (LD50): Acute: 2066 mg/kg [Rabbit].</p> <p>VAPOR (LC50): Acute: 11000 mg/m³ 2 hours [Rat]. 5800 mg/m³ 2 hours [Guinea pig].</p>				

Section 3. Hazards Identification	
Potential Acute Health Effects	Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (permeator). Severe over-exposure can result in death.
Potential Chronic Health Effects	<p>CARCINOGENIC EFFECTS: Classified A3 (Proven for animal.) by ACGIH, 3 (Equivocal evidence.) by NTP, C (Possible for human.) by EPA. Classified None. by OSHA, None. by NIOSH. 3 (Not classifiable for human.) by IARC.</p> <p>MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast.</p> <p>TERATOGENIC EFFECTS: Not available.</p> <p>DEVELOPMENTAL TOXICITY: Not available.</p> <p>The substance may be toxic to kidneys, lungs, liver, upper respiratory tract, skin, eyes. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a</p>

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highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

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. WARM water MUST 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. 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 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	485°C (905°F)
Flash Points	CLOSED CUP: -31.7°C (-25.1°F). OPEN CUP: -28.9°C (-20°F).
Flammable Limits	LOWER: 2.9% UPPER: 11.2%
Products of Combustion	Not available.
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.
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	Not available.
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. 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 touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. 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. 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. 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). Do not store above 23°C (73.4°F).

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	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	TWA: 1 STEL: 2 (ppm) from ACGIH (TLV) [United States] [1999] TWA: 1 STEL: 2 (ppm) [Canada] TWA: 1 STEL: 2 from NIOSH TWA: 3 STEL: 6 from NIOSH TWA: 1 STEL: 2 (ppm) from OSHA (PEL) [United States] TWA: 3 STEL: 6 (mg/m ³) from OSHA (PEL) [United States] Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical state and appearance	Liquid.	Odor	Pungent. Irritant. Sharp
Molecular Weight	76.53 g/mole	Taste	Not available.
pH (1% soln/water)	Not available.	Color	Clear Colorless.
Boiling Point	45°C (113°F)		
Melting Point	-135.5°C (-211.9°F)		
Critical Temperature	241.11°C (466°F)		
Specific Gravity	0.94 (Water = 1)		
Vapor Pressure	39.3 kPa (@ 20°C)		
Vapor Density	2.6 (Air = 1)		
Volatility	Not available.		
Odor Threshold	0.47 ppm		
Water/Oil Dist. Coeff.	The product is more soluble in water; log(oil/water) = -0.2		
Ionicity (in Water)	Not available.		
Dispersion Properties	Not available.		
Solubility	Very slightly soluble in cold water.		

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	High temperatures, ignition sources, mechanical shock, incompatible materials. Allyl chloride produces hydrogen chloride upon storage and can similarly undergo hydrolysis in water to allyl alcohol and hydrogen chloride. This process is inhibited by the compound's low solubility, but accelerated by caustics. Exposure to sunlight and heat can lead to degradation of the unsaturated bond.
Incompatibility with various substances	Reactive with oxidizing agents, acids.
Corrosivity	Not available.
Special Remarks on Reactivity	Incompatible with strong oxidizers, acids, amines, iron, aluminum chlorides, magnesium and zinc.
Special Remarks on Corrosivity	Allyl will attack some forms of plastics, rubber, and coatings
Polymerization	Will not occur.

Section 11. Toxicological Information

Routes of Entry	Absorbed through skin. Eye contact. Inhalation.
Toxicity to Animals	WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral toxicity (LD50): 425 mg/kg [Mouse]. Acute dermal toxicity (LD50): 2066 mg/kg [Rabbit]. Acute toxicity of the vapor (LC50): 5800 mg/m ³ 2 hours [Guinea pig].
Chronic Effects on Humans	CARCINOGENIC EFFECTS: Classified A3 (Proven for animal.) by ACGIH, 3 (Equivocal evidence.) by NTP, C (Possible for human.) by EPA. Classified None. by OSHA, None. by NIOSH. 3 (Not classifiable for human.) by IARC. MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast. May cause damage to the following organs: kidneys, lungs, liver, upper respiratory tract, skin, eyes.
Other Toxic Effects on Humans	Hazardous in case of skin contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (permeator).
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	May cause tumorigenic effects (respiratory and gastrointestinal tracts) based on animal data. No human data found. May affect genetic material and may cause adverse reproductive and birth defects based on animal data. No human data found.
Special Remarks on other Toxic Effects on Humans	Acute Potential Health Effects:] Skin: May cause severe irritation and possible burns especially if the skin is wet or moist. Eye: Causes severe irritation, and possible eye burns. Ingestion: Harmful if swallowed. May cause severe gastrointestinal tract irritation with nausea, vomiting and possible burns. May affect behavior (tremors, convulsions) and respiratory system (respiratory depression, dyspnea). May affect peripheral nerves and spinal cord. Inhalation: May cause irritation of the respiratory tract with burning pain in the nose, throat, coughing, wheezing, shortness of breath and pulmonary edema, and respiratory depression. May cause lung damage. Vapors may cause dizziness or suffocation. May affect liver, urinary system, blood metabolism, endocrine system and nervous system and behavior (somnolence or general depressed activity). Chronic Potential Health Effects: May cause liver and kidney damage. May cause cancer according to animal studies. May cause lung damage



Section 12. Ecological Information

Ecotoxicity	Ecotoxicity in water (LC50): 20 mg/l 96 hours [Fathead minnow]. 42 mg/l 72 hours [Bluegill]. 21 ppm 96 hours [Goldfish].
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	Not available.
Special Remarks on the Products of Biodegradation	Not available.

Section 13. Disposal Considerations

Waste Disposal

Section 14. Transport Information

DOT Classification	CLASS 3: Flammable liquid. CLASS 6.1: Poisonous material.
Identification	: Allyl Chloride UNNA: 1100 PG: I
Special Provisions for Transport	Not available.
DOT (Pictograms)	 

Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations	California prop. 65 (no significant risk level): Allyl Chloride: 30000 mg/day (value) New York release reporting list: Allyl Chloride Rhode Island RTK hazardous substances: Allyl Chloride Pennsylvania RTK: Allyl Chloride Florida: Allyl Chloride Minnesota: Allyl Chloride Massachusetts RTK: Allyl Chloride New Jersey: Allyl Chloride California Director's List of Hazardous Substances (8 CCR 339): Allyl Chloride Tennessee: Allyl Chloride TSCA 8(b) inventory: Allyl Chloride SARA 313 toxic chemical notification and release reporting: Allyl Chloride CERCLA: Hazardous substances.: Allyl Chloride: 1000 lbs. (453.6 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.				
Other Classifications	<table border="1"> <tr> <td>WHMIS (Canada)</td> <td>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).</td> </tr> <tr> <td>DSCL (EEC)</td> <td></td> </tr> </table>	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)	
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DSCL (EEC)					

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R11- Highly flammable.
 R26- Very toxic by inhalation.
 R50- Very toxic to aquatic organisms.

S16- Keep away from sources of ignition - No smoking.
 S29- Do not empty into drains.
 S33- Take precautionary measures against static discharges.
 S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
 S61- Avoid release to the environment. Refer to special instructions/Safety data sheets.

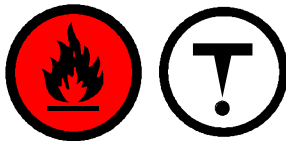
HMIS (U.S.A.)

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** 4100A**References** Not available.**Other Special Considerations** Not available.

Validated by Sonia Owen on 8/11/2006.

Verified by Sonia Owen.

Printed 9/8/2006.

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.