



Material Safety Data Sheet

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

Section 1. Chemical Product and Company Identification		Page Number: 1
Common Name/Trade Name	1,2,4-Trichlorobenzene	Catalog Number(s). YY806, HP862, T2675, T1113
Manufacturer	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	CAS# 120-82-1
Commercial Name(s)	Not available.	RTECS DC2100000
Synonym	Not available.	TSCA TSCA 8(b) inventory: 1,2,4-Trichlorobenzene
Chemical Name	Benzene, 1,2,4-trichloro-	CI# Not applicable.
Chemical Family	Aromatic chlorinated solvent. (Solvent.)	IN CASE OF EMERGENCY CHEMTREC (24hr) 800-424-9300 CALL (310) 516-8000
Chemical Formula	C ₆ H ₃ Cl ₃	
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) {1,2,4-}Trichlorobenzene	120-82-1				100
Toxicological Data on Ingredients	1,2,4-Trichlorobenzene: ORAL (LD50): Acute: 756 mg/kg [Rat]. 300 mg/kg [Mouse]. 766 mg/kg [Mouse]. DERMAL (LD50): Acute: 6139 mg/kg [Rat].				

Section 3. Hazards Identification	
Potential Acute Health Effects	Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion. Slightly hazardous in case of skin contact (permeator), 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 kidneys, liver. 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. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. 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.
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. 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	May be combustible at high temperature.
Auto-Ignition Temperature	571°C (1059.8°F)
Flash Points	CLOSED CUP: 105°C (221°F).
Flammable Limits	LOWER: 2.5% UPPER: 6.6%
Products of Combustion	These products are carbon oxides (CO, CO ₂), halogenated compounds.
Fire Hazards in Presence of Various Substances	Slightly flammable to 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	Absorb with an inert material and put the spilled material in an appropriate waste disposal.
Large Spill	If the product is in its solid form: Use a shovel to put the material into a convenient waste disposal container. If the product is in its liquid form: Absorb with an inert material and put the spilled material in an appropriate waste 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. 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, acids.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area.

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. Gloves. 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	CEIL: 5 (ppm) from ACGIH (TLV) [United States] Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical state and appearance	Liquid.	Odor	Aromatic.
Molecular Weight	181.46 g/mole	Taste	Not available.
pH (1% soln/water)	Not available.	Color	Colorless.
Boiling Point	213.5°C (416.3°F)		
Melting Point	16°C (60.8°F) - 17 C.		
Critical Temperature	453.3°C (847.9°F)		
Specific Gravity	1.456 (Water = 1)		
Vapor Pressure	0.1 kPa (@ 20°C)		
Vapor Density	6.26 (Air = 1)		
Volatility	Not available.		
Odor Threshold	Not available.		
Water/Oil Dist. Coeff.	The product is more soluble in oil; log(oil/water) = 4		
Ionicity (in Water)	Not available.		
Dispersion Properties	Not available.		
Solubility	Very slightly soluble in cold water. Miscible with ether, benzene, petroleum ether, carbon disulfide In water, 31.3 mg/l at 25 deg C.		

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	Excess heat, incompatible materials
Incompatibility with various substances	Reactive with oxidizing agents, acids.

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Corrosivity	Non-corrosive in presence of glass.
Special Remarks on Reactivity	ON CONTACT WITH ACIDS OR ACID FUMES THEY EVOLVE HIGHLY TOXIC HYDROGEN CHLORIDE FUMES. CAN REACT VIGOROUSLY WITH OXIDIZING MATERIALS.
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	Acute oral toxicity (LD50): 300 mg/kg [Mouse]. Acute dermal toxicity (LD50): 6139 mg/kg [Rat].
Chronic Effects on Humans	May cause damage to the following organs: kidneys, liver.
Other Toxic Effects on Humans	Hazardous in case of skin contact (irritant), of ingestion. Slightly hazardous in case of skin contact (permeator), of inhalation.
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	May affect genetic material (mutagenic). May cause adverse reproductive effects based on animal test data. May cause cancer based on animal test data.
Special Remarks on other Toxic Effects on Humans	Acute Potential Health Effects: Skin: Causes skin irritation. Eyes: Causes moderate eye irritation. Inhalation: Inhalation of mist or vapor may can respiratory tract (nose, throat) irritation. Ingestion: Chronic Potential Health Effects: Prolonged or repeated exposure or exposure to high concentrations may be hepatotoxic or nephrotoxic. Seizures may occur. Chronic exposure has resulted in CNS depression and hepatic injury in experimental animals.


Section 12. Ecological Information

Ecotoxicity	Ecotoxicity in water (LC50): 2.8 mg/L 96 hours [Fish (Pimephales promales)]. 3.02 mg/L 96 hours [Fish (Lempomis macrochirus)].
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 as toxic as 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 6.1: Poisonous material.
Identification	UNNA: 2321 : Trichlorobenzene, liquid PG: III
Special Provisions for Transport	Marine Pollutant
DOT (Pictograms)	

Section 15. Other Regulatory Information and Pictograms

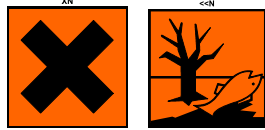
Federal and State Regulations	<p>Connecticut hazardous material survey.: 1,2,4-Trichlorobenzene New York release reporting list: 1,2,4-Trichlorobenzene Rhode Island RTK hazardous substances: 1,2,4-Trichlorobenzene Pennsylvania RTK: 1,2,4-Trichlorobenzene Minnesota: 1,2,4-Trichlorobenzene Michigan critical material: 1,2,4-Trichlorobenzene Massachusetts RTK: 1,2,4-Trichlorobenzene New Jersey: 1,2,4-Trichlorobenzene New Jersey spill list: 1,2,4-Trichlorobenzene California Director's List of Hazardous Substances: 1,2,4-Trichlorobenzene TSCA 8(b) inventory: 1,2,4-Trichlorobenzene TSCA 8(a) IUR: 1,2,4-Trichlorobenzene TSCA 8(d) H and S data reporting: 1,2,4-Trichlorobenzene: Effective date: 10/04/02; Sunset date: 10/04/92 SARA 313 toxic chemical notification and release reporting: 1,2,4-Trichlorobenzene CERCLA: Hazardous substances.: 1,2,4-Trichlorobenzene: 100 lbs. (45.36 kg)</p>
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California Proposition 65 Warnings	<p>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.</p>
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Other Regulations	<p>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. 204-426-0). 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.</p>
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Other Classifications	WHMIS (Canada)	<p>CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC). CLASS D-2B: Material causing other toxic effects (TOXIC).</p>							
	DSCL (EEC)	<table border="0"> <tr> <td>R22- Harmful if swallowed.</td> <td>S23- Do not breathe gas/fumes/vapour/spray [***]</td> </tr> <tr> <td>R38- Irritating to skin.</td> <td>S37/39- Wear suitable gloves and eye/face protection.</td> </tr> <tr> <td>R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</td> <td>S60- This material and its container must be disposed of as hazardous waste.</td> </tr> <tr> <td></td> <td>S61- Avoid release to the environment. Refer to special instructions/Safety data sheets.</td> </tr> </table>	R22- Harmful if swallowed.	S23- Do not breathe gas/fumes/vapour/spray [***]	R38- Irritating to skin.	S37/39- Wear suitable gloves and eye/face protection.	R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.	S60- This material and its container must be disposed of as hazardous waste.	
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Health Hazard	2										
Fire Hazard	1										
Reactivity	0										
Personal Protection	j										

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

Gloves.



Lab coat.



Wear appropriate respirator when ventilation is inadequate.

Splash goggles.

Section 16. Other Information**MSDS Code** T3815**References** Not available.**Other Special Considerations**

Major Uses: Solvent in chemical manufacturing, dyes & intermediates, dielectric fluid, synthetic transformer oils, lubricants, heat-transfer medium, insecticides.

Used as a comonomer with p-Dichlorobenzene in the production of arylene sulfide polymers.

Used as a dye carrier and an intermediate in the manufacture of herbicides and higher chlorinated benzenes, dielectric fluid, solvent, heat-transfer medium.

Used in degreasing agents, septic tank and drain cleaners, wood preservatives, and abrasive formulations.

Former use: As a soil treatment for termite control.

Validated by Sonia Owen on 10/9/2009.

Verified by Sonia Owen.

Printed 10/9/2009.

CALL (310) 516-8000

[Notice to Reader](#)**Continued on Next Page**

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.