Solutia Inc.

Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Santochlor® Insecticide
Para-Dichlorobenzene

Reference Number: 000000000273 Date: 01/09/2003

Company Information:

United States:
Solutia Inc.
575 Maryville Center Drive, P.O. Box 66760
St. Louis, MO 63166-6760
Emergency telephone: Chemtrec: 1-800-424-9300
Non-Emergency telephone: 1-314-674-6661

Canada:
Solutia Canada Inc.
6800 St. Patrick Street
LaSalle, PQ H8N 2H3
Emergency telephone: CANUTEC: 1-613-996-6666
Non-Emergency telephone: 1-314-674-6661

Mexico:
Solutia MEXICO, S. DE R.L. DE C.V.
Blvd. Manuel Avila Camacho No. 40 Piso 12 Colonia Lomas de Chapultepec
Edificio Torre Esmeralda11000 Mexico, D.F.
Emergency telephone: SETIQ: (in Mexico) 01-800-002-1400
Non-Emergency telephone: (in Mexico) 555-202-5600

Brazil:
Solutia Brazil Ltd.
Avenue Jorge Bei Maluf, 2105
CEP 08686-000 Suzano, SP
Emergency telephone: 0800 193-190
Non-Emergency telephone: 5511 4745-8569

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS No.	Average concentration	Concentration range	Units
1,4-dichlorobenzene	106-46-7		>=99.9 - <=100.0	%

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Form: crystals, liquid
Colour: white
Odour: mothball

WARNING STATEMENTS

WARNING!
Causes eye irritation

Causes skin irritation
Causes respiratory tract irritation
Harmful if swallowed
Harmful if absorbed through skin
Hot material can cause thermal burns
Combustible liquid and vapour
Excessive exposure may cause liver and kidney damage
Contains material which may cause cancer based on animal data

POTENTIAL HEALTH EFFECTS

Likely routes of exposure:	inhalation eye and skin contact
Eye contact:	Highly irritating to eyes.
Skin contact:	Highly irritating to skin. Harmful if absorbed Hot melted material causes thermal burns
Inhalation:	Severely irritating if inhaled. Significant adverse health effects are not expected to develop under normal conditions of exposure.
Ingestion:	Harmful if swallowed.
Signs and symptoms of overexposure:	headache dizziness/incoordination nausea/vomiting loss of consciousness vertigo confusion anxiety laboured breathing drowsiness
Target organs/systems:	May cause liver damage May cause kidney damage
Carcinogenicity:	Contains a component that is a National Toxicology Program (NTP) and International Agency for Research Cancer (IARC) listed carcinogen.

Refer to Section 11 for toxicological information.

4. FIRST AID MEASURES

General:	Keep out of the reach of children.
If in eyes:	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove any contact lenses. Get medical attention. Contact a Poison Control Center. Remove material from skin and clothing.
If on skin:	Immediately flush with plenty of water for at least 15 minutes.

	Remove contaminated clothing. Get medical attention. Contact a Poison Control Center. Wash clothing before reuse. In case of contact with hot liquid treat for thermal burns.
If inhaled:	Remove patient to fresh air. If not breathing, give artificial respiration. Get medical attention. Contact a Poison Control Center. Remove material from eyes, skin and clothing.
If swallowed:	Offer a glass of water to drink. Never give anything by mouth to an unconscious person. Get medical attention. Contact a Poison Control Center. Do NOT induce vomiting unless directed by medical personnel. Remove material from eyes, skin and clothing.
Notes to physicians:	Probable mucosal damage may contra-indicate gastric lavage.

5. FIRE FIGHTING MEASURES

Flash point: 65 C Cleveland Open Cup

Hazardous products of combustion:	carbon dioxide; carbon monoxide (CO); smoke; soot; chlorine; chlorides
Extinguishing media:	Water spray, foam, dry chemical, or carbon dioxide
Unusual fire and explosion hazards:	None known
Fire fighting equipment:	Firefighters, and others exposed, wear self-contained breathing apparatus. Equipment should be thoroughly decontaminated after use.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Remove any sources of sparks, flame, or hot surfaces. Use personal protection recommended in section 8.
Environmental precautions:	Keep out of drains and water courses.
Methods for cleaning up:	Contain large spills with dikes and transfer the material to appropriate containers for reclamation or disposal. Absorb remaining material or small spills with an inert material and then place in a chemical waste container. In case of spill, sweep, scoop or vacuum and remove. Flush spill area with water.

Refer to Section 13 for disposal information and Sections 14 and 15 for reportable quantity information.

7. HANDLING AND STORAGE

Handling
Keep away from heat and flame.

Do not taste or swallow.
Avoid contact with eyes, skin and clothing.
Avoid breathing vapour or mist.
Avoid contact with hot liquid.
Use with adequate ventilation.
Keep container closed.
Wash thoroughly after handling.

Emptied containers retain vapour and product residue. Observe all recommended safety precautions until container is cleaned, reconditioned or destroyed. Do not cut, drill, grind or weld on or near this container. The reuse of this material's container for non industrial purposes is prohibited and any reuse must be in consideration of the data provided in this material safety data sheet.

Storage

General:	Do not contaminate water, food, or feed by storage or disposal. Stable under normal conditions of handling and storage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye protection:	Wear chemical goggles/face shield. Have eye flushing equipment available.
Hand protection:	Wear chemical resistant gloves. Consult the glove/clothing manufacturer to determine the appropriate type glove/clothing for a given application.
Body protection:	Wear suitable protective clothing. Consult the glove/clothing manufacturer to determine the appropriate type glove/clothing for a given application. Wear full protective clothing if exposed to splashes. Wash contaminated skin promptly. Launder contaminated clothing and clean protective equipment before reuse. Have safety shower available at locations where skin contact can occur. Wash thoroughly after handling.
Respiratory protection:	Avoid breathing vapour or mist. Avoid breathing dust. Use approved respiratory protection equipment (full facepiece recommended) when airborne exposure limits are exceeded. If used, full facepiece replaces the need for face shield and/or chemical goggles. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.
Ventilation:	Provide natural or mechanical ventilation to control exposure levels below airborne exposure limits. If practical, use local mechanical exhaust ventilation at sources of air contamination such as processing equipment.
Airborne exposure limits:	(ml/m3 = ppm)
1,4-dichlorobenzene	ACGIH TLV: 10 ml/m3 ; 60 mg/m3 ; ; 8-hr TWA OSHA PEL: 75 ml/m3 ; 450 mg/m3 ; ; 8-hr TWA Mexican OEL: 75 ml/m3 ; 450 mg/m3 ; ; 8-hr TWA Mexican OEL: 110 ml/m3 ; 675 mg/m3 ; ; 15-min STEL

Components referred to herein may be regulated by specific Canadian provincial legislation. Please refer to exposure limits legislated for the province in which the substance will be used.

9. PHYSICAL AND CHEMICAL PROPERTIES

Specific gravity:	1.458 @ 20 C
Boiling point :	174 C
Melting point :	53 C
Vapour pressure:	0.8 hPa @ 20 C
Water solubility:	0.08 g/l @ 25 C
Vapour density (air=1):	5.1

NOTE: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

10. STABILITY AND REACTIVITY

Conditions to avoid:	All sources of ignition. Elevated temperatures
Materials to avoid -	Contact with strong oxidizing agents.
Hazardous reactions:	Contact with strong reducing agents. Hazardous polymerization does not occur.
Hazardous decomposition products:	None known;

11. TOXICOLOGICAL INFORMATION

This product has been tested for toxicity. Results from Solutia sponsored studies or from the available public literature are described below.

Acute animal toxicity data

Oral:	LD50 , rat, 3,826 mg/kg , Slightly toxic following oral administration.
Dermal:	LD50 , rabbit, > 5,010 mg/kg , Practically nontoxic after skin application in animal studies.
Inhalation:	LC50 , rat, > 6 mg/l , 4 h, Practically nontoxic based on animal inhalation exposure studies. vapour
Eye irritation:	rabbit , Moderately irritating,
Skin irritation:	rabbit , Slightly irritating to skin (rabbit)., 4 h
Repeat dose toxicity:	rat & rabbit & guinea pig & dog, inhalation, 13 weeks, Produced effects on body weight, serum enzymes and/or organ weights in repeat dose studies. Repeated exposure produced liver and kidney changes in animal models. Prolonged inhalation studies produced lung effects.

Repeat dose toxicity:	rat, dermal, subchronic, No adverse treatment related effects.
Repeat dose toxicity:	rat, diet, subchronic, Produced effects on body weight, serum enzymes and/or organ weights in repeat dose studies. Repeated exposure produced liver and kidney changes in animal models.
Target organs affected	body weight, kidneys, liver, bone marrow, spleen, thymus, nose
Developmental toxicity:	rat, gavage, , No birth defects (malformations) noted in animal studies at dose levels which produced maternal and fetal toxicity. rat & rabbit, inhalation, , No adverse treatment related effects in offspring.
Reproductive toxicity:	rat, inhalation, 2 generation, Signs of generalized toxicity (reduced body weight and/or reduced weight gain) were observed in parental animals and offspring with no effect on fertility or reproduction.
Carcinogenicity:	rat & mouse, gavage, 24 months, Evidence of treatment related tumours., Tumours have been detected in experimental animals but may not be relevant to humans. mouse, inhalation, 18 months, No evidence of treatment related tumours. rat, inhalation, 12 months, No evidence of treatment related tumours. Listed as a substance that "may reasonably be anticipated to be" carcinogenic by the National Toxicological Program (NTP) and is classified as "possibly carcinogenic to humans" by the International Agency for Research on Cancer (IARC).
Mutagenicity:	The weight of the evidence indicates that this material is not mutagenic in in-vitro assays. The weight of the evidence indicates that this material is not mutagenic in in-vivo assays.

12. ECOLOGICAL INFORMATION

Environmental Toxicity:

Invertebrates	48 h,	EC50	Water flea (Daphnia magna)	7.4 mg/l
Fish:	96 h,	LC50	Rainbow trout (Oncorhynchus mykiss)	1.12 mg/l
	96 h,	LC50	Fathead minnow (Pimephales promelas)	4.0 mg/l
	96 h,	LC50	Bluegill sunfish (Lepomis macrochirus)	4.3 mg/l
Algae:	48 h,	EC50	Algae	1.6 mg/l

Environmental fate

Biodegradation

Inherently biodegradable.

13. DISPOSAL CONSIDERATIONS

US EPA RCRA Status: This material when discarded is a hazardous waste as that term is defined by the Resource, Conservation and Recovery Act (RCRA),40 CFR 261. See disposal considerations below for U.S. EPA disposal requirements. Consult regulatory officials

for performance standards.

US EPA RCRA hazardous waste number:	U072	Compound/Characteristic:	p-Dichlorobenzene

Disposal considerations: Consult 40 CFR 268.40 or appropriate local regulations for concentration based standards.

Miscellaneous advice: Local, state, provincial, and national disposal regulations may be more or less stringent. Consult your attorney or appropriate regulatory officials for information on such disposal.
This product should not be dumped, spilled, rinsed or washed into sewers or public waterways.

14. TRANSPORT INFORMATION

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

US DOT

Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. *1,4-dichlorobenzene*
Hazard Class:	9
Hazard Identification number:	UN3077
Packing Group:	Packing Group III
Transport label:	Class 9
Other:	Applies ONLY to packages which contain an RQ quantity.

Canadian TDG

Other:	Not regulated for transport.

Reportable Quantity/Limit

US DOT RQ 100 lb *1,4-dichlorobenzene*
Package size containing reportable amount: 100 lb

15. REGULATORY INFORMATION

All components are in compliance with the following inventories: U.S. TSCA, Canadian DSL, EU EINECS, Australian AICS, Korean, Japanese ENCS, Phillipine PICCS, Chinese

Canadian WHMIS classification:
B3 - Combustible Liquids
D2(A) - Materials Causing Other Toxic Effects
D2(B) - Materials Causing Other Toxic Effects

SARA Hazard Notification:

Hazard Categories Under Title III Rules (40 CFR 370):
Immediate
Delayed
Fire

Section 302 Extremely Hazardous Substances:

Section 313 Toxic Chemical(s): 1,4-dichlorobenzene

CERCLA Reportable Quantity:

100 lbs 1,4-dichlorobenzene
For this/these chemicals, release of more than the Reportable Quantity to the environment in a 24 hour period requires notification to the National Response Center (800-424-8802 or 202-426-2675).

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulation and the MSDS contains all the information required by the Canadian Controlled Products Regulation.

Refer to Section 11 for OSHA/HPA Hazardous Chemical(s) and Section 13 for RCRA classification.

Safety data sheet also created in accordance with Brazilian law NBR 14725

16. OTHER INFORMATION

Product use: Non agricultural pesticides, Odour agents, Intermediates

Reason for revision: Significant changes to the following section(s):, Section 16

	Health	Fire	Reactivity	Additional Information
Suggested NFPA Rating	1	2	0	
Suggested HMIS Rating:	1	2	0	C

EPA Registration No: 71645-1 (Santochlor Molten)
EPA Registration No: 71645-4 (Santochlor Flakes)

Prepared by the Solutia Hazard Communication Group. Please consult Solutia @ 314-674-6661 if further information is needed.