

SAFETY DATA SHEET

Preparation Date: 08/11/2015

Revision Date: 08/11/2015

Revision Number: G1

1. IDENTIFICATION

Product identifier

Product code: D1019
Product Name: O-DICHLOROBENZENE, REAGENT

Other means of identification

Synonyms: 1,2-Dichlorobenzene; Chloroben; Cloroben; DCB; Dichlorobenzene, ortho, liquid; Dilantin DB; Dilatin DB; Dizene; Dowtherm E; Orthodichlorobenzene; Orthodichlorobenzol; Special termite fluid; Termitkil; o-Dichlor benzol; o-Dichlorbenzol; o-Dichlorobenzene; o-Dichlorobenzol

CAS #: 95-50-1
RTECS # CZ4500000
Cl#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: Solvent for waxes, gums, resins, tars, rubbers, oils, asphalts, insecticide for termites and locust borers; Removing sulfur from illuminating gas; as intermed in mfr of dyes; as heat transfer medium; As degreasing agent for metals, leather, wool; as ingredient of metal polishes; As solvent mixt used to remove lead & carbonaceous deposits from engine parts; as component of rust-proofing mix; As a magnetic coil coolant, in wood-preserving compounds; Used as a process solvent in the manufacture of toluene diisocyanate; . Herbicide. Insecticide. Agricultural fumigant.

Uses advised against No information available

Supplier: Spectrum Chemical Mfg. Corp
 14422 South San Pedro St.
 Gardena, CA 90248
 (310) 516-8000

Order Online At: <https://www.spectrumchemical.com>

Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Martin LaBenz (West Coast)
Contact Person: Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Vapors)	Category 3
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Specific target organ toxicity (single exposure)	Category 3

Label elements**Danger****Hazard statements**

Toxic if inhaled
Harmful if swallowed
Causes serious eye irritation
Causes skin irritation
May cause respiratory irritation
Combustible liquid

**Hazards not otherwise classified (HNOC)**

Not Applicable

Other hazards

Not available

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Wear protective gloves
Wear eye/face protection

Precautionary Statements - Response

Specific treatment (see .? on this label)

Specific treatment (see .? on this label)

In case of fire: Use CO₂, dry chemical, or foam to extinguish.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of soap and water

If skin irritation occurs: Get medical advice/attention

Take off contaminated clothing and wash before reuse

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician.

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed
Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %	Trade Secret
o-Dichlorobenzene 95-50-1	95-50-1	100	*

4. FIRST AID MEASURES

First aid measures**General Advice:**

Poison information centers in each State capital city can provide additional assistance for scheduled poisons (13 1126).

Skin Contact:

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention. If skin irritation persists, call a physician.

Eye Contact:

Flush eye with water for 15 minutes. Get medical attention.

Inhalation:

Toxic by inhalation. Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. **WARNING!** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.

Ingestion:

Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.

Most important symptoms and effects, both acute and delayed**Symptoms**

Causes serious eye irritation. Causes skin irritation. Irritating to respiratory system. Central nervous system effects. May cause nausea and headache. May cause drowsiness or dizziness.. May affect the liver. It may affect the kidneys. It may affect the blood.

Indication of any immediate medical attention and special treatment needed**Notes to Physician:**

Treat symptomatically

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

5. FIRE-FIGHTING MEASURES

Extinguishing Media**Suitable Extinguishing Media:**

Dry chemical. Carbon dioxide (CO₂). Water spray. Foam.

Unsuitable Extinguishing Media:

Do not use a solid (straight) water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Hazardous Combustion Products:	Carbon oxides. Halogenated compounds. Hydrogen chloride. Chlorine
Specific hazards:	Combustible material May be ignited by heat, sparks or flames Container explosion may occur under fire conditions or when heated Most vapors are heavier than air. They will spread along the ground and collect in low or confined areas (sewers, basements, tanks) Poisonous gases are produced in fire including chlorine

Special Protective Actions for Firefighters

Specific Methods:	For larger fires, use water spray or fog. Cool containers with flooding quantities of water until well after fire is out. Dike fire-control water for later disposal; do not scatter the material.
Special Protective Equipment for Firefighters:	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions:	Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Evacuate personnel to safe areas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. All equipment used when handling the product must be grounded.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Prevent entry into waterways, sewers, basements or confined areas. In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

Methods and material for containment and cleaning up

Methods for containment	Stop leak if you can do it without risk. Absorb spill with inert material (e.g. vermiculite, dry sand or earth). Dike far ahead of liquid spill for later disposal.
Methods for cleaning up	Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Use only non-sparking tools. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. All equipment used when handling the product must be grounded. Remove all sources of ignition. Keep away from incompatible materials.

Safe Handling Advice

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not breathe vapors or spray mist. Do not ingest. Do not smoke. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Do not store near combustible materials. Store away from incompatible materials. Store in a segregated and approved area.

Incompatible Materials:

Oxidizing agents. Strong acids. Aluminum. aluminum alloys. Metals. Combustible materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters**National occupational exposure limits****United States**

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
o-Dichlorobenzene 95-50-1	50 ppm Ceiling 300 mg/m ³ Ceiling	= 50 ppm Ceiling = 300 mg/m ³ Ceiling	= 50 ppm STEL	None

Canada

Components	Alberta	British Columbia	Ontario	Quebec
o-Dichlorobenzene 95-50-1	= 150 mg/m ³ TWA = 25 ppm TWA	= 25 ppm TWA	25 ppm TWA	50 ppm Ceiling 301 mg/m ³ Ceiling

Australia and Mexico

Components	Australia	Mexico
o-Dichlorobenzene 95-50-1	301 mg/m ³ STEL 50 ppm STEL 25 ppm TWA 150 mg/m ³ TWA	= 300 mg/m ³ TWA = 50 ppm TWA

Appropriate engineering controls**Engineering measures to reduce exposure:**

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Individual protection measures, such as personal protective equipment**Personal Protective Equipment**

Eye protection: Goggles

Skin and body protection: Long sleeved clothing. Chemical resistant apron. Gloves.

Respiratory protection: Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

Hygiene measures: Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES
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Physical state: Liquid.	Appearance: No information available	Color: Colorless to pale yellow.
Odor: Pleasant.	Taste No information available	Molecular/Formula weight: 147.00
Formula: C6H4Cl2	Flammability: Combustible	Flash point (°C): 68°C 74°C
Flashpoint (°C/°F): 68°C/ 154.4°F 74°C/ 165.2°F	Flash Point Tested according to: Closed cup Open cup	Lower Explosion Limit (%): 2%
Autoignition Temperature (°C/°F): 648°C/ 1198.4°F	Upper Explosion Limit (%): 9%	pH: No information available
Melting point/range(°C/°F): -16.7°C/ 1.94°F	Boiling point/range(°C/°F): 180.1°C/ 356°F	Decomposition temperature(°C/°F): No information available
Bulk density: No information available	Specific gravity: 1.3059	Vapor pressure @ 20°C (kPa): No information available
Density (g/cm3): 1.30	Evaporation rate: No information available	Vapor density: 5.07
VOC content (g/L): No information available	Odor threshold (ppm): 0.70	Partition coefficient (n-octanol/water): 3.43
Viscosity: 1.324 mPa.s at 25°C	Miscibility: Miscible with alcohol Miscible with Ether Miscible with Benzene	Solubility: Solubility in water: 156 mg/L at 25°C

10. STABILITY AND REACTIVITY

Reactivity

Reactive with oxidizing agents, strong acids, aluminum, aluminum alloys, metals, combustible materials

Chemical stability

Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Ignition sources. Incompatible materials.

Incompatible Materials: Oxidizing agents. Strong acids. Aluminum. aluminum alloys. Metals. Combustible materials.

Hazardous decomposition products: Carbon oxides. Halogenated compounds. Hydrogen chloride. Chlorine.

Other Information

Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:

Skin. Eyes. Inhalation. Ingestion.

Acute Toxicity

Component Information

o-Dichlorobenzene - 95-50-1

LD50/oral/rat = 1516 mg/kg Oral LD50 Rat

LD50/oral/mouse = 4358 mg/kg

LD50/dermal/rat = No information available

LD50/dermal/rabbit = 10 g/kg Dermal LD50Rabbit

LC50/inhalation/rat = 8.15 mg/L Inhalation LC50 Rat 4 h

LC50/inhalation/mouse = No information available

Other LD50 or LC50 information = No information available

Product Information

LD50/oral/rat =

VALUE- Acute Tox Oral = 1516mg/kg

LD50/oral/mouse =

Value - Acute Tox Oral = 4358mg/kg

LD50/dermal/rabbit

VALUE-Acute Tox Dermal = 10000mg/kg

LD50/dermal/rat

VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat

VALUE-Vapor = No information available

VALUE-Gas = 8.15mg/l (4-hr)

VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse

VALUE-Vapor = No information available

VALUE - Gas = No information available

VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Causes skin irritation.

Eye Contact: Causes serious eye irritation.

Inhalation Toxic by inhalation. Irritating to respiratory system. Inhalation of high concentrations of vapor may cause anesthetic effects. Inhalation of vapors may cause drowsiness and dizziness. It may affect the liver. May cause nausea and headache. Can cause lung irritation and coughing.

Ingestion Harmful if swallowed.

Aspiration hazard No information available

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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity Prolonged or repeated skin contact may cause dermatitis. Prolonged or repeated ingestion or inhalation may affect the liver. Prolonged or repeated ingestion may affect the kidneys. Prolonged or repeated inhalation may affect the kidneys. Prolonged or repeated exposure may affect the blood.

Sensitization: No information available

Mutagenic Effects: No information available

Carcinogenic effects: Not classifiable as to its carcinogenicity to humans.

Components	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Prohibited Carcinogenic Substances	Australia - Notifiable Carcinogenic Substances
o-Dichlorobenzene	Group 3 - Monograph 73 [1999] Supplement 7 [1987]	A4 Not Classifiable as a Human Carcinogen	Not listed	Not listed	Not listed	Not listed

*ACGIH (American Conference of Governmental Industrial Hygienists)
IARC (International Agency for Research on Cancer)*

Reproductive toxicity No data is available

Reproductive Effects: No information available

Developmental Effects: No information available

Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure STOT - single exposure. Respiratory system. central nervous system.

STOT - repeated exposure No information available

Target Organs: Kidneys. Liver. Lungs. Skin. Blood.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

o-Dichlorobenzene - 95-50-1

Freshwater Algae Data: 61.2 - 181 mg/L EC50 Pseudokirchneriella subcapitata 72 h

2.2 mg/L EC50 Pseudokirchneriella subcapitata 96 h

91.6 mg/L EC50 Pseudokirchneriella subcapitata 96 h

Freshwater Fish Species Data: 42.6-80.4 mg/L LC50 Pimephales promelas 96 h static 1

8.23-10.9 mg/L LC50 Pimephales promelas 96 h flow-through 1

5.8 mg/L LC50 Pimephales promelas 96 h static 1

4.8-6.6 mg/L LC50 Lepomis macrochirus 96 h static 1

1.44-1.73 mg/L LC50 Oncorhynchus mykiss 96 h flow-through 1

5.2 mg/L LC50 Brachydanio rerio 96 h flow-through 1

o-Dichlorobenzene - 95-50-1

Water Flea Data: 1.7 mg/L EC50 Daphnia magna 24 h
0.74 mg/L EC50 Daphnia magna 48 h

Persistence and degradability: No information available

Bioaccumulative potential: No information available

Mobility: No information available

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
<i>o</i> -Dichlorobenzene	None	None	None	U070

14. TRANSPORT INFORMATION

DOT

UN-No: UN1591
Proper Shipping Name: *o*-Dichlorobenzene
Hazard Class: 6.1
Subsidiary Risk:
Packing Group: III
ERG No: 152
Marine Pollutant No data available
DOT RQ (lbs): No information available

Symbol(s): +

TDG (Canada)

UN-No: UN1591
Proper Shipping Name: *o*-Dichlorobenzene
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: III
Description: No information available

ADR

UN-No: UN1591
Proper Shipping Name: *o*-Dichlorobenzene
Hazard Class: 6.1
Packing Group: III
Subsidiary Risk: No information available
Classification Code: No information available
Description: No information available

14. TRANSPORT INFORMATION

CEFIC Tremcard No: No information available

IMO / IMDG

UN-No: UN1591
Proper Shipping Name: o-Dichlorobenzene
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: III
Description: No information available
IMDG Page: No information available
Marine Pollutant: No information available
EMS: F-A
MFAG: No information available
Maximum Quantity: No information available

RID

UN-No: UN1591
Proper Shipping Name: o-Dichlorobenzene
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: III
Classification Code: No information available
Description: No information available

ICAO

UN-No: UN1591
Proper Shipping Name: o-Dichlorobenzene
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: III
Description: No information available

IATA

UN-No: UN1591
Proper Shipping Name: o-Dichlorobenzene
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: III
ERG Code: 6L
Description: No information available

15. REGULATORY INFORMATION

International Inventories

Components	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
<i>o-Dichlorobenzene</i>	Present	Present KE-10066	Present	Present (3)-41	Present	Present	Present 202-425-9

U.S. Regulations

o-Dichlorobenzene

Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: 0642
New Jersey (EHS) List: 0642 500 lb TPQ
New Jersey - Discharge Prevention - List of Hazardous Substances: Present

Product code: D1019

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o-Dichlorobenzene

Pennsylvania RTK: Environmental hazard
Pennsylvania RTK - Environmental Hazard List Present
Pennsylvania RTK - Special Hazardous Substances Present
Minnesota - Hazardous Substance List: Present
New York Release Reporting - List of Hazardous Substances:
= 100 lb RQ
Louisiana Reportable Quantity List for Pollutants: Listed
California Directors List of Hazardous Substances: Present

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
<i>o</i> -Dichlorobenzene	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting <i>de minimis</i>
<i>o</i> -Dichlorobenzene	= 100 lb final RQ = 45.4 kg final RQ	None	None	None	1.0 % de minimis concentration

U.S. TSCA

Components	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
<i>o</i> -Dichlorobenzene	Not Applicable	Not Applicable

Canada

WHMIS hazard class:

B3 Combustible liquid
D1B Toxic materials

o-Dichlorobenzene
B3 D1B

Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Components	WHMIS Ingredient Disclosure List -
<i>o</i> -Dichlorobenzene	1 %

Inventory

Components	Canada (DSL)	Canada (NDSL)
<i>o</i> -Dichlorobenzene	Present	Not Listed

Components	CEPA Schedule I - Toxic Substances	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
p-Dichlorobenzene	Not listed	Not listed

EU Classification

R-phrase(s)

R22 - Harmful if swallowed.
R50 - Very toxic to aquatic organisms.
R51 - Toxic to aquatic organisms.
R52 - Harmful to aquatic organisms.
R53 - May cause long-term adverse effects in the aquatic environment.
R36/37/38 - Irritating to eyes, respiratory system and skin.

S -phrase(s)

S 2 - Keep out of the reach of children.
S23 - Do not breathe gas/fumes/vapor/spray.
S60 - This material and its container must be disposed of as hazardous waste.
S61 - Avoid release to the environment. Refer to special instructions/safety data sheets.

Components	Classification	Concentration Limits:	Safety Phrases
p-Dichlorobenzene	Xn; R22 Xi; R36/37/38 N; R50-53	25%≤C: Xn,N; R22-36/37/38-50/53 20%≤C<25%: Xn,N; R22-36/37/38-51/53 5%≤C<20%: Xn,N; R22-51/53 2.5%≤C<5%: N; R51/53 0.25%≤C<2.5%: R52/53	S2 S23 S60 S61

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

Xi - Irritant.
Xn - Harmful.
N - Dangerous for the environment.



16. OTHER INFORMATION

16. OTHER INFORMATION

Preparation Date: 08/11/2015
Revision Date: 08/11/2015
Prepared by: Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) 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 SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. 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 SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet