Section 1. Chemical Product and Company Identification

Common Name/Trade Name: Chlorobutanol
Catalog Number(s): YY1080, CH123
Catalog Number(s):
CAS#: 57-15-8
CAS#
RTECS: UC0175000
RTECS
TSCA: TSCA 8(b) inventory: Chlorobutanol
CI#: Not available.
CI#

Manufacturer: SPECTRUM CHEMICAL MFG. CORP.
14422 S. SAN PEDRO STREET
GARDENA, CA 90248
Supplier: SPECTRUM CHEMICAL MFG. CORP.
14422 S. SAN PEDRO STREET
GARDENA, CA 90248

Commercial Name(s): Not available.
Synonym: 1,1,1-Trichloro-tert-butyl alcohol
Chemical Name: Not available.
Chemical Family: Not available.
Chemical Formula: C4H6CL3OH

Section 2. Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>TWA (mg/m³)</th>
<th>STEL (mg/m³)</th>
<th>CEIL (mg/m³)</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Chlorobutanol</td>
<td>57-15-8</td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

Toxicological Data on Ingredients: Chlorobutanol
LD50: Not available.
LC50: Not available.

Section 3. Hazards Identification

Potential Acute Health Effects: Extremely hazardous in case of ingestion. Very hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation. 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: Extremely hazardous in case of ingestion. Very hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation.
CARCINOGENIC EFFECTS: Not available.
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Not available.
The substance is toxic to liver.
Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

Continued on Next Page
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. Do not use an eye ointment. Seek medical attention.

Skin Contact
After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

Serious Skin Contact
Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

Inhalation
Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

Serious Inhalation
Not available.

Ingestion
Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

Serious Ingestion
Not available.

Section 5. Fire and Explosion Data

Flammability of the Product
May be combustible at high temperature.

Auto-Ignition Temperature
Not available.

Flash Points
Not available.

Flammable Limits
Not available.

Products of Combustion
These products are carbon oxides (CO, CO2).

Fire Hazards in Presence of Various Substances
Not available.

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
Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill
Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.
### Section 7. Handling and Storage

**Precautions**

Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not breathe dust. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Avoid contact with skin and eyes.

**Storage**

Keep container dry. Keep in a cool place. Ground all equipment containing material. Keep container tightly closed. Keep in a cool, well-ventilated place. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents.

### Section 8. Exposure Controls/Personal Protection

**Engineering Controls**

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Personal Protection**

- Splash goggles.
- Lab coat.
- Dust respirator.
- Be sure to use an approved/certified respirator or equivalent.
- Gloves.

**Personal Protection in Case of a Large Spill**

- Splash goggles.
- Full suit.
- Dust 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**

Not available.

### Section 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical state and appearance</th>
<th>Solid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular Weight</td>
<td>177.46 g/mole</td>
</tr>
<tr>
<td>pH (1% soln/water)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>167°C (332.6°F)</td>
</tr>
<tr>
<td>Melting Point</td>
<td>99°C (210.2°F)</td>
</tr>
<tr>
<td>Critical Temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Volatility</td>
<td>Not available.</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not available.</td>
</tr>
<tr>
<td>Water/Oil Dist. Coeff.</td>
<td>Not available.</td>
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<tr>
<td>Ionicity (in Water)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Dispersion Properties</td>
<td>Not available.</td>
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<tr>
<td>Solubility</td>
<td>Very slightly soluble in cold water.</td>
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</table>

### Section 10. Stability and Reactivity Data

| Stability                      | The product is stable. |
| Instability Temperature        | Not available. |
| Conditions of Instability      | Not available. |
| Incompatibility with various substances | Not available. |

Continued on Next Page
**Chlorobutanol**

**Corrosivity**
Non-corrosive in presence of glass.

**Special Remarks on Reactivity**
Not available.

**Special Remarks on Corrosivity**
Not available.

**Polymerization**
No.

### Section 11. Toxicological Information

**Routes of Entry**
Eye contact. Inhalation. Ingestion.

**Toxicity to Animals**
LD50: Not available.
LC50: Not available.

**Chronic Effects on Humans**
The substance is toxic to liver.

**Other Toxic Effects on Humans**
Extremely hazardous in case of ingestion. Very hazardous in case of skin contact (irritant), of inhalation.

**Special Remarks on Toxicity to Animals**
Not available.

**Special Remarks on Chronic Effects on Humans**
Not available.

**Special Remarks on other Toxic Effects on Humans**
Not available.

### Section 12. Ecological Information

**Ecotoxicity**
Not available.

**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 more toxic.

**Special Remarks on the Products of Biodegradation**
Not available.

### Section 13. Disposal Considerations

**Waste Disposal**

### Section 14. Transport Information

**DOT Classification**
Not a DOT controlled material (United States).

**Identification**
Not applicable.

**Special Provisions for Transport**
Not applicable.

*Continued on Next Page*
### Chlorobutanol

#### DOT (Pictograms)

![DOT Pictogram](image)

### Section 15. Other Regulatory Information and Pictograms

#### Federal and State Regulations

- **TSCA 8(b) inventory:** Chlorobutanol

#### California Proposition 65 Warnings


#### Other Regulations

- **Other Classifications**
  - **WHMIS (Canada):** CLASS D-2B: Material causing other toxic effects (TOXIC).
  - **DSCL (EEC):**
    - R38 - Irritating to skin.
    - R41 - Risk of serious damage to eyes.
  - **HMIS (U.S.A.):**
    - Health Hazard: 2
    - Fire Hazard: 1
    - Reactivity: 0
    - Personal Protection: E
  - **National Fire Protection Association (U.S.A.):**
    - Health Flammability: 2
    - Reactivity: 1
    - Specific hazard: 0

**WHMIS (Canada) (Pictograms)**

![WHMIS Pictogram](image)

**DSCL (Europe) (Pictograms)**

![DSCL Pictogram](image)

**TDG (Canada) (Pictograms)**

![TDG Pictogram](image)

**ADR (Europe) (Pictograms)**

![ADR Pictogram](image)

**Protective Equipment**

- Gloves.
- Lab coat.
- Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.

*Continued on Next Page*
Splash goggles.

### Section 16. Other Information

<table>
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<tr>
<th>MSDS Code</th>
<th>C4046</th>
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<td>References</td>
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<td>Other Special Considerations</td>
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</table>

Verified by Sonia Owen.  

**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.*