MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name: Dettol
UPC CODES: Refer to Section 16
CAS #: Mixture
Product use: Antiseptic
Manufacturer: Reckitt Benckiser Healthcare LTD
Dansom Lane
Hull, England HU8 7DS
In Case of Emergency: 1-800-888-0192
Transportation Emergencies: 24 Hour Number:
North America: CHEMTREC: 1-800-424-9300
Outside North America: 1-703-527-3887

2. Hazards Identification

Emergency overview
Warnings: For external use only.
Do not use: in the eyes or over large areas of the body.
Ask a doctor before use if you have: deep wounds or puncture wounds, animal bites or serious burns.
Stop use and ask a doctor if: irritation, sensitization, or allergic reaction occurs. These may be signs of a serious condition.
Stop use and ask a doctor if: the condition gets worse or lasts more than one week.
KEEP OUT OF REACH OF CHILDREN.

Potential short term health effects
Routes of exposure: Eye, Skin contact, Inhalation, Ingestion.
Eyes
May cause eye irritation. Avoid contact with eyes.
Skin
Discontinue use (as an antiseptic) if rash or irritation occurs. Do not use undiluted on skin.
Inhalation
None expected.
Ingestion
For external use only.
Target organs
Eyes. Respiratory system. Skin.
Chronic effects
The finished product is not expected to have chronic health effects.
Signs and symptoms
Eye irritation

3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloroxygenol</td>
<td>88-04-0</td>
<td>2.5 - 10</td>
</tr>
<tr>
<td>Pine oil</td>
<td>8002-09-3</td>
<td>2.5 - 10</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>67-63-0</td>
<td>10 - 20</td>
</tr>
</tbody>
</table>
4. First Aid Measures

First aid procedures

Eye contact
If splashed in eyes, immediately rinse eyes with plenty of water, remove any contact lenses and continue rinsing eyes for at least 15 minutes. Consult a physician or get medical attention.

Skin contact
Discontinue use (as an antiseptic) if rash or irritation occurs.

Inhalation
Remove to fresh air. If irritation persists or there is any trouble breathing, get immediate medical attention.

Ingestion
If swallowed, get medical help or contact a poison control centre right away. Do not induce vomiting.

Notes to physician
Contains pine oil.

General advice
If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Keep out of reach of children.

5. Fire Fighting Measures

Flammable properties
Combustible by OSHA criteria.

Extinguishing media

Suitable extinguishing media
Dry chemical. Foam. Carbon dioxide.

Unsuitable extinguishing media
Not available

Protection of firefighters
Specific hazards arising from the chemical
Not available

Protective equipment for firefighters
Firefighters should wear full protective clothing including self contained breathing apparatus.

Hazardous combustion products
May include and are not limited to: Oxides of carbon.

Explosion data

Sensitivity to mechanical impact
Not available

Sensitivity to static discharge
Not available

6. Accidental Release Measures

Personal precautions
Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.

Methods for containment
Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.

Methods for cleaning up
Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills in original containers for re-use.

7. Handling and Storage

Handling
For external use only. Avoid contact with eyes. Discontinue use (as an antiseptic) if rash or irritation occurs. Do not use undiluted on skin. Use good industrial hygiene practices in handling this material. When using do not eat or drink.

Storage
Keep out of reach of children.
Store in a closed container away from incompatible materials.
Keep away from heat, open flames or other sources of ignition.
Keep at temperatures between 20 and 25°C (68-77°F).
8. Exposure Controls / Personal Protection

<table>
<thead>
<tr>
<th>Exposure limits</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingredient(s)</td>
<td>ACGIH-TLV</td>
</tr>
<tr>
<td>Chloroxylenol</td>
<td>Not established</td>
</tr>
<tr>
<td></td>
<td>OSHA-PEL</td>
</tr>
<tr>
<td></td>
<td>Not established</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>ACGIH-TLV</td>
</tr>
<tr>
<td></td>
<td>TWA: 200 ppm</td>
</tr>
<tr>
<td></td>
<td>STEL: 400 ppm</td>
</tr>
<tr>
<td></td>
<td>OSHA-PEL</td>
</tr>
<tr>
<td></td>
<td>TWA: 400 ppm</td>
</tr>
<tr>
<td>Pine oil</td>
<td>ACGIH-TLV</td>
</tr>
<tr>
<td></td>
<td>Mist: 5 mg/m3</td>
</tr>
<tr>
<td></td>
<td>OSHA-PEL</td>
</tr>
<tr>
<td></td>
<td>Not established</td>
</tr>
</tbody>
</table>

**Engineering controls**

General ventilation normally adequate.

**Personal protective equipment**

**Eye / face protection**

Avoid contact with eyes.

When handling in large quantities or responding to emergency situations, the use of appropriate eye protection is recommended.

Emergency responders should wear full eye and face protection.

**Hand protection**

May cause mild skin irritation after prolonged or repeated use.

Emergency responders should wear impermeable gloves.

**Skin and body protection**

No special requirements under normal use conditions.

Emergency responders should wear impermeable clothing and footwear when responding to a situation where contact with the liquid is possible.

**Respiratory protection**

Not normally required under normal use conditions.

Emergency responders should wear self-contained breathing apparatus (SCBA) to avoid inhalation of vapours generated by this product during a spill or other clean-up operations.

**General hygiene considerations**

Washing with soap and water after use is recommended as good hygienic practice to prevent possible eye irritation from hand contact.

9. Physical and Chemical Properties

**Appearance**

Clear.

**Color**

Brown

**Form**

Liquid

**Odor**

Characteristic Pine / Phenolic

**Odor threshold**

Not available

**Physical state**

Liquid

**pH**

9.5 (Basic)

**Melting point**

Not available

**Freezing point**

Not available

**Pour point**

Not available

**Boiling point**

Not available

**Flash point**

104.00 °F (40 °C) Tagliabue

**Evaporation rate**

Not available

**Flammability limits in air, lower, % by volume**

Not available

**Flammability limits in air, upper, % by volume**

Not available

**Vapor pressure**

Not available
Vapor density: Not available
Specific gravity: 0.98 (Water =1)
Relative density: Not available
Octanol/water coefficient: Not available
Solubility (H2O): Miscible
Auto-ignition temperature: Not available
VOC (Weight %): Not available
Viscosity: Not available
Percent volatile: Not available

10. Stability and Reactivity

Chemical stability: Stable under recommended storage conditions.
Conditions to avoid: Do not mix with other chemicals.
Hazardous decomposition products: May include and are not limited to: Oxides of carbon.
Possibility of hazardous reactions: Hazardous polymerization does not occur.

11. Toxicological Information

Component analysis - LC50

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloroxylenol</td>
<td>6.29 mg/l/4h rat</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>16970 mg/l/4h rat</td>
</tr>
<tr>
<td>Pine oil</td>
<td>Not available</td>
</tr>
</tbody>
</table>

Component analysis - Oral LD50

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloroxylenol</td>
<td>3830 mg/kg rat</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>4396 mg/kg rat</td>
</tr>
<tr>
<td>Pine oil</td>
<td>3200 mg/kg rat</td>
</tr>
</tbody>
</table>

Effects of acute exposure:
- **Eye**: May cause eye irritation. Avoid contact with eyes.
- **Skin**: Discontinue use (as an antiseptic) if rash or irritation occurs. Do not use undiluted on skin.
- **Inhalation**: None expected.
- **Ingestion**: For external use only.

Sensitization: The finished product is not expected to have chronic health effects.
Chronic effects: The finished product is not expected to have chronic health effects.

ACGIH - Threshold Limit Values - Carcinogens

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropanol</td>
<td>A4 - Not Classifiable as a Human Carcinogen</td>
</tr>
</tbody>
</table>

IARC - Group 3 (Not Classifiable)

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropanol</td>
<td>Monograph 71 [1999]; Supplement 7 [1987]; Monograph 15 [1977]</td>
</tr>
</tbody>
</table>

Mutagenicity: The finished product is not expected to have chronic health effects.
Reproductive effects: The finished product is not expected to have chronic health effects.
Teratogenicity: The finished product is not expected to have chronic health effects.
Synergistic Materials: Not available
### 12. Ecological Information

Components of this product have been identified as having potential environmental concerns.

<table>
<thead>
<tr>
<th>Ecotoxicity - Freshwater Algae Data</th>
<th>96 Hr EC50 Desmodesmus subspicatus: &gt;1000 mg/L; 72 Hr EC50 Desmodesmus subspicatus: &gt;1000 mg/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropanol</td>
<td>67-63-0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ecotoxicity - Freshwater Fish Species Data</th>
<th>96 Hr LC50 Oncorhynchus mykiss: 0.13-1.0 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: 1.3-2.1 mg/L [static]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloroxylenol</td>
<td>88-04-0</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>67-63-0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ecotoxicity - Water Flea Data</th>
<th>96 Hr LC50 Pimephales promelas: 9640 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: 11130 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: &gt;1400000 μg/L</th>
</tr>
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<td>8002-09-3</td>
</tr>
</tbody>
</table>

#### Environmental effects
- Not available

#### Aquatic toxicity
- Not available

#### Persistence / degradability
- Not available

#### Bioaccumulation / accumulation
- Not available

#### Partition coefficient
- Not available

#### Mobility in environmental media
- Not available

#### Chemical fate information
- Not available

### 13. Disposal Considerations

#### Waste codes
- Not available

#### Disposal instructions
- Review federal, provincial, and local government requirements prior to disposal.

#### Waste from residues / unused products
- Not available

#### Contaminated packaging
- Not available

### 14. Transport Information

#### UN/ID No.
- UN 1993

#### U.S. Department of Transportation (DOT)
- Not Regulated by ground transport - See 49 CFR 173.150 (F)
Transportation of Dangerous Goods (TDG - Canada)

Not Regulated by ground transport - See TDG Part 1.33

IMDG (Marine Transport)

UN 1993, Flammable Liquid N.O.S (Isopropyl alcohol, Pine Oil), Class 3, PG III, Limited Quantity, (Flashpoint 40°C)

IATA/ICAO (Air)

UN 1993, Flammable Liquid N.O.S (Isopropyl alcohol, Pine Oil), Class 3, PG III, Limited Quantity or Consumer Commodity, ID 8000 if acceptable to the air carrier.

15. Regulatory Information

US Federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.

Product Registration: Registered with FDA

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Isopropanol 67-63-0 1.0 % de minimis concentration (only if manufactured by the strong acid process, no supplier notification)

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical Yes
Hazard categories

- Immediate Hazard - Yes
- Delayed Hazard - No
- Fire Hazard - Yes
- Pressure Hazard - No
- Reactivity Hazard - No

Section 302 extremely hazardous substance
No

Section 311 hazardous chemical
Yes

Clean Air Act (CAA)
Not available

Clean Water Act (CWA)
Not available

State regulations
This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances
Isopropanol 67-63-0 Present

U.S. - Massachusetts - Right To Know List
Isopropanol 67-63-0 Present

U.S. - Minnesota - Hazardous Substance List
Isopropanol 67-63-0 Present

U.S. - New Jersey - Right to Know Hazardous Substance List
Isopropanol 67-63-0 sn 1076
Pine oil 8002-09-3 sn 2684

U.S. - Pennsylvania - RTK (Right to Know) List
Isopropanol 67-63-0 Environmental hazard

U.S. - Rhode Island - Hazardous Substance List
Isopropanol 67-63-0 Toxic; Flammable

Inventory status

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).

16. Other Information

Disclaimer

This product should only be used as directed on the label and for the purpose intended. To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Further information

- 12496-00044 - Dettol - 25.35 fl.oz. (750 mL) - 930666
- 12496-00043 - Dettol - 16.90 fl.oz. (500 mL) - 930666
- 12496-00042 - Dettol - 8.45 fl.oz. (250 mL) - 930666
- 12496-00047 - Dettol - 4.22 fl.oz. (125 mL) - 930666

Issue date
26-Mar-2010

Effective date
15-Mar-2010

Prepared by
Reckitt Benckiser Regulatory Department 800-333-3899

Other information
For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.