1. Product and Company Identification

<table>
<thead>
<tr>
<th>Product Name</th>
<th>BRASSO® Metal Polish</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPC CODES</td>
<td>Refer to Section 16</td>
</tr>
<tr>
<td>Product use</td>
<td>Metal Polish</td>
</tr>
<tr>
<td>Distributed by</td>
<td>Reckitt Benckiser</td>
</tr>
<tr>
<td></td>
<td>Morris Corporate Center IV</td>
</tr>
<tr>
<td></td>
<td>399 Interpace Parkway</td>
</tr>
<tr>
<td></td>
<td>P.O. Box 225</td>
</tr>
<tr>
<td></td>
<td>Parsippany, NJ 07054-0225</td>
</tr>
<tr>
<td></td>
<td>In Case of Emergency: 1-800-338-6167</td>
</tr>
<tr>
<td></td>
<td>Transportation Emergencies: 24 Hour Number:</td>
</tr>
<tr>
<td></td>
<td>North America: CHEMTREC: 1-800-424-9300</td>
</tr>
<tr>
<td></td>
<td>Outside North America: 1-703-527-3887</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LEGEND</th>
<th>HMIS/NFPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe</td>
<td>4</td>
</tr>
<tr>
<td>Serious</td>
<td>3</td>
</tr>
<tr>
<td>Moderate</td>
<td>2</td>
</tr>
<tr>
<td>Slight</td>
<td>1</td>
</tr>
<tr>
<td>Minimal</td>
<td>0</td>
</tr>
</tbody>
</table>

2. Hazards Identification

Emergency overview

CAUTION: EYE IRRITANT. Contains Ammonia. May be irritating to skin. Avoid contact with eyes and skin.

KEEP OUT OF REACH OF CHILDREN.

Potential short term health effects

Routes of exposure

Eye, Skin contact, Inhalation, Ingestion.

Eyes

None expected during normal conditions of use. May cause eye irritation upon direct contact with the eyes.

Skin

None expected during normal conditions of use. Not expected to be a skin sensitizer.

Inhalation

None expected during normal conditions of use.

Ingestion

Health injuries are not known or expected under normal use.

Target organs


Chronic effects

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

Signs and symptoms

Symptoms may include redness, edema, drying, defatting and cracking of the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

OSHA Regulatory Status

This product is a “Hazardous Chemical” as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Potential environmental effects

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

3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropanol</td>
<td>67-63-0</td>
<td>2.5 - 10</td>
</tr>
<tr>
<td>Limestone</td>
<td>1317-65-3</td>
<td>10 - 20</td>
</tr>
<tr>
<td>Ammonium hydroxide</td>
<td>1336-21-6</td>
<td>1 - 2.5</td>
</tr>
<tr>
<td>Ethanedioic acid, dihydrate</td>
<td>6153-56-6</td>
<td>1 - 2.5</td>
</tr>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>0.1 - 1</td>
</tr>
</tbody>
</table>
4. First Aid Measures

First aid procedures

**Eye contact**

In case of contact with eyes, rinse eyes IMMEDIATELY with plenty of water. If persistent irritation occurs, seek medical advice.

**Skin contact**

In case of skin contact, wash area thoroughly with water.

**Inhalation**

Move to fresh air. Obtain medical attention if irritation persists.

**Ingestion**

If swallowed, drink a glass of water or milk. Call a physician or Poison Control Center IMMEDIATELY. Never give anything by mouth if victim is unconscious, or is convulsing.

**Notes to physician**

If the product is ingested, probable mucosal damage may contraindicate the use of gastric lavage. Treat the affected person appropriately.

**General advice**

Keep away from sources of ignition. No smoking. 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. Avoid contact with eyes and skin. Keep out of reach of children.

5. Fire Fighting Measures

**Flammable properties**

Combustible by OSHA criteria.

**Extinguishing media**

**Suitable extinguishing media**

Dry chemical. Carbon dioxide. Alcohol foam.

**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. Oxides of nitrogen.

**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.

**Environmental precautions**

Do not discharge into lakes, streams, ponds or public waters.

**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**

Remove sources of ignition. 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 to original containers for re-use.

7. Handling and Storage

**Handling**

CAUTION

**CAUSES EYE IRRITATION.**

Use good industrial hygiene practices in handling this material. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

**Storage**

Keep out of reach of children. Keep from freezing. Do not store at temperatures above 120°F (49°C). Store in a closed container away from incompatible materials.
### 8. Exposure Controls / Personal Protection

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ammonium hydroxide</strong></td>
<td>ACGIH-TLV</td>
</tr>
<tr>
<td></td>
<td>Not established</td>
</tr>
<tr>
<td></td>
<td>OSHA-PEL</td>
</tr>
<tr>
<td></td>
<td>Not established</td>
</tr>
<tr>
<td><strong>Ethanedioic acid, dihydrate</strong></td>
<td>ACGIH-TLV</td>
</tr>
<tr>
<td></td>
<td>TWA: 1 mg/m³</td>
</tr>
<tr>
<td></td>
<td>STEL: 2 mg/m³</td>
</tr>
<tr>
<td></td>
<td>OSHA-PEL</td>
</tr>
<tr>
<td></td>
<td>TWA: 1 mg/m³</td>
</tr>
<tr>
<td><strong>Ethanol</strong></td>
<td>ACGIH-TLV</td>
</tr>
<tr>
<td></td>
<td>TWA: 1000 ppm</td>
</tr>
<tr>
<td></td>
<td>STEL: 1000 ppm</td>
</tr>
<tr>
<td></td>
<td>OSHA-PEL</td>
</tr>
<tr>
<td></td>
<td>TWA: 1000 ppm</td>
</tr>
<tr>
<td><strong>Isopropanol</strong></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><strong>Limestone</strong></td>
<td>ACGIH-TLV</td>
</tr>
<tr>
<td></td>
<td>TWA: 5 mg/m³</td>
</tr>
<tr>
<td></td>
<td>OSHA-PEL</td>
</tr>
<tr>
<td></td>
<td>TWA: 15 mg/m³</td>
</tr>
</tbody>
</table>

**Engineering controls**

**General ventilation normally adequate.**

**Personal protective equipment**

**Eye / face protection**

Safety glasses if eye contact is possible. Emergency responders should wear full eye and face protection.

**Hand protection**

No special requirements under normal use conditions. For sensitive skin or prolonged use, wear rubber gloves. Emergency responders should wear impermeable gloves.

**Skin and body protection**

Usual safety precautions while handling the product will provide adequate protection against this potential effect.

**Respiratory protection**

Not normally required under normal use conditions. Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. 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**

Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. 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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td>Liquid</td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>off-white, tan.</td>
</tr>
<tr>
<td><strong>Form</strong></td>
<td>Liquid</td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>ammoniacal</td>
</tr>
<tr>
<td><strong>Odor threshold</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Physical state</strong></td>
<td>Liquid</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>9.6 - 10.2</td>
</tr>
</tbody>
</table>
Freezing point: Not available
Boiling point: Not available
Pour point: Not available
Evaporation rate: Not available
Flash point: 105 °F (40.55 °C) Tag Closed Cup
Auto-ignition temperature: 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: Not available
Octanol/water coefficient: Not available
Solubility (H2O): Insoluble
VOC (Weight %): Not available
Viscosity: Viscous
Percent volatile: Not available

10. Stability and Reactivity

Reactivity: This product may react with strong oxidizing agents.
Possibility of hazardous reactions: Hazardous polymerization does not occur.
Chemical stability: Stable under recommended storage conditions.
Conditions to avoid: Avoid high temperatures. Do not mix with other chemicals.
Incompatible materials: Not for use on silver, lacquered, painted or antiqued finished surfaces.
Hazardous decomposition products: May include and are not limited to: Oxides of carbon. Oxides of nitrogen.

11. Toxicological Information

Component analysis - LC50

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium hydroxide</td>
<td>Not available</td>
</tr>
<tr>
<td>Ethanedioic acid, dihydrate</td>
<td>Not available</td>
</tr>
<tr>
<td>Ethanol</td>
<td>31623 ppm rat</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>16970 mg/l/4h rat</td>
</tr>
<tr>
<td>Limestone</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>Ammonium hydroxide</td>
<td>350 mg/kg rat</td>
</tr>
<tr>
<td>Ethanedioic acid, dihydrate</td>
<td>375 mg/kg rat</td>
</tr>
<tr>
<td>Ethanol</td>
<td>3450 mg/kg mouse; 7060 mg/kg rat</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>4396 mg/kg rat</td>
</tr>
<tr>
<td>Limestone</td>
<td>6450 mg/kg rat</td>
</tr>
</tbody>
</table>

Effects of acute exposure

- Eye: None expected during normal conditions of use. May cause eye irritation upon direct contact with the eyes.
- Skin: None expected during normal conditions of use. Not expected to be a skin sensitizer.
- Inhalation: None expected during normal conditions of use.
- Ingestion: Health injuries are not known or expected under normal use.
- 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.
Carcinogenicity

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

**ACGIH - Threshold Limit Values - Carcinogens**

- Ethanol 64-17-5  
  A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
- Isopropanol 67-63-0  
  A4 - Not Classifiable as a Human Carcinogen

**IARC - Group 3 (Not Classifiable)**

- Isopropanol 67-63-0  
  Monograph 71 [1999]; Supplement 7 [1987]; Monograph 15 [1977]

**U.S. - California - Proposition 65 - Carcinogens List**

- Ethanol 64-17-5  
  carcinogen, initial date 5/3/11

Mutagenicity

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

Mutagenic effects were observed in somatic and reproductive cells of live animals (rats and mice) exposed to high oral doses of ethanol.

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.

Animal studies demonstrate that ingestion of ethanol can cause embryotoxicity, teratogenicity and fetotoxicity in the presence of maternal toxicity.

**Name of Toxicologically Synergistic Products**

Not available

12. Ecological Information

Ecotoxicity

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

**Ecotoxicity - Freshwater Algae - Acute Toxicity Data**

- Isopropanol 67-63-0  
  96 Hr EC50 Desmodesmus subspicatus: >1000 mg/L; 72 Hr EC50 Desmodesmus subspicatus: >1000 mg/L

**Ecotoxicity - Freshwater Fish - Acute Toxicity Data**

- Ammonium hydroxide 1336-21-6  
  96 Hr LC50 Pimephales promelas: 8.2 mg/L
- Ethanol 64-17-5  
  96 Hr LC50 Oncorhynchus mykiss: 12.0 - 16.0 mL/L [static]; 96 Hr LC50 Pimephales promelas: >100 mg/L [static]; 96 Hr LC50 Pimephales promelas: 13400 - 15100 mg/L [flow-through]
- Isopropanol 67-63-0  
  96 Hr LC50 Pimephales promelas: 9640 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: 11130 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: >140000 µg/L

**Ecotoxicity - Water Flea - Acute Toxicity Data**

- Ammonium hydroxide 1336-21-6  
  48 Hr EC50 water flea: 0.66 mg/L; 48 Hr EC50 Daphnia pulex: 0.66 mg/L
- Ethanol 64-17-5  
  48 Hr LC50 Daphnia magna: 9268 - 14221 mg/L; 24 Hr EC50 Daphnia magna: 10800 mg/L; 48 Hr EC50 Daphnia magna: 2 mg/L [Static]
- Isopropanol 67-63-0  
  48 Hr EC50 Daphnia magna: 13299 mg/L

**Persistence / degradability**

Not available

**Bioaccumulation / accumulation**

Not available

**Mobility in environmental media**

Not available

**Environmental effects**

Not available

**Aquatic toxicity**

Not available

**Partition coefficient**

Not available

**Chemical fate information**

Not available

13. Disposal Considerations

**Disposal instructions**

Dispose in accordance with all applicable regulations.

**Waste from residues / unused products**

Not available

**Contaminated packaging**

Not available
14. Transport Information

U.S. Department of Transportation (DOT)
Not Regulated by DOT (Road/Rail Only) 173.150 (f) (2)

Transportation of Dangerous Goods (TDG - Canada)
Not Regulated by TDG (Road/Rail Only), TDG Part 1.36

IMDG (Marine Transport)
UN 1987, Alcohols, N.O.S. (Isopropanol, Ethanol), Class 3, PG III,
Limited Quantity, (Flashpoint 40.556°C cc )

IATA/ICAO (Air)
UN 1987, Alcohols, N.O.S. (Isopropanol, Ethanol), Class 3, PG III
15. Regulatory Information

Occupational Safety and Health Administration (OSHA)
29 CFR 1910.1200 hazardous chemical Yes

US Federal regulations
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Product Registration: Product is compliant with CPSC regulatory guidelines; a specific registration is not required for this product.

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities
Ammonium hydroxide 1336-21-6 1000 Lb final RQ; 454 kg final RQ

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)

U.S. - CWA (Clean Water Act) - Hazardous Substances
Ammonium hydroxide 1336-21-6 Present

Superfund Amendments and Reauthorization Act of 1986 (SARA)
Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance No
Section 311 hazardous chemical No
Clean Air Act (CAA) Not available
Clean Water Act (CWA) Hazardous substance
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
Ammonium hydroxide 1336-21-6 Present (refers to solutions >=4%)
Isopropanol 67-63-0 Present

U.S. - California - Proposition 65 - Carcinogens List
Ethanol 64-17-5 carcinogen, initial date 5/3/11

U.S. - Louisiana - Reportable Quantity List for Pollutants
Ammonium hydroxide 1336-21-6 1000 Lb final RQ; 454 kg final RQ

U.S. - Massachusetts - Right To Know List
Ammonium hydroxide 1336-21-6 Present
Ethanol 64-17-5 Teratogen
Isopropanol 67-63-0 Present
Limestone 1317-65-3 Present

U.S. - Minnesota - Hazardous Substance List
Ethanol 64-17-5 Present
Isopropanol 67-63-0 Present
Limestone 1317-65-3 Present (dust)

U.S. - New Jersey - Right to Know Hazardous Substance List
Ammonium hydroxide 1336-21-6 sn 0103
Ethanol 64-17-5 sn 0844
Isopropanol 67-63-0 sn 1076
Limestone 1317-65-3 sn 4001

U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances
Ammonium hydroxide 1336-21-6 1000 Lb RQ (air); 100 lb RQ (land/water)

U.S. - Pennsylvania - RTK (Right to Know) List
Ammonium hydroxide 1336-21-6 Environmental hazard
Ethanedioic acid, dihydrate 6153-56-6 Present
Ethanol 64-17-5 Present
Isopropanol 67-63-0 Environmental hazard
Limestone 1317-65-3 Present

U.S. - Rhode Island - Hazardous Substance List
Ethanedioic acid, dihydrate 6153-56-6 Flammable
Ethanol 64-17-5 Toxic; Flammable
Isopropanol 67-63-0 Toxic; Flammable
Limestone 1317-65-3 Toxic

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

UPC CODES: 26600-06200 (8 oz.)

FORMULA NUMBER: 0175699

Issue date 01-Nov-2011
Effective date 15-Oct-2009
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.