MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name **BRASSO® Metal Polish**

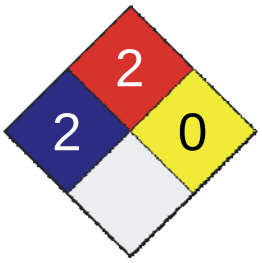
UPC CODES Refer to Section 16

Product use Metal Polish

Distributed by Reckitt Benckiser
Morris Corporate Center IV
399 Interpace Parkway
P.O. Box 225
Parsippany, NJ 07054-0225
In Case of Emergency: 1-800-338-6167
Transportation Emergencies: 24 Hour Number:
North America: CHEMTREC: 1-800-424-9300
Outside North America: 1-703-527-3887

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	*	2
Flammability		2
Physical Hazard		0
Personal Protection		B



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 Blood. Eyes. Liver. Respiratory system. Skin.

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

Ingredient(s)	CAS #	Percent
Isopropanol	67-63-0	2.5 - 10
Limestone	1317-65-3	10 - 20
Ammonium hydroxide	1336-21-6	1 - 2.5
Ethanedioic acid, dihydrate	6153-56-6	1 - 2.5
Ethanol	64-17-5	0.1 - 1

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

Exposure limits

Ingredient(s)	Exposure Limits
Ammonium hydroxide	**ACGIH-TLV** Not established **OSHA-PEL** Not established
Ethanedioic acid, dihydrate	**ACGIH-TLV** TWA: 1 mg/m3 STEL: 2 mg/m3 **OSHA-PEL** TWA: 1 mg/m3
Ethanol	**ACGIH-TLV** TWA: 1000 ppm STEL: 1000 ppm **OSHA-PEL** TWA: 1000 ppm
Isopropanol	**ACGIH-TLV** TWA: 200 ppm STEL: 400 ppm **OSHA-PEL** TWA: 400 ppm
Limestone	**ACGIH-TLV** TWA: 5 mg/m3 **OSHA-PEL** TWA: 15 mg/m3

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

Appearance Liquid.
Color off-white. tan.
Form Liquid
Odor ammoniacal
Odor threshold Not available
Physical state Liquid
pH 9.6 - 10.2

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

Ingredient(s)	LC50
Ammonium hydroxide	Not available
Ethanedioic acid, dihydrate	Not available
Ethanol	31623 ppm rat
Isopropanol	16970 mg/l/4h rat
Limestone	Not available

Component analysis - Oral LD50

Ingredient(s)	LD50
Ammonium hydroxide	350 mg/kg rat
Ethanedioic acid, dihydrate	375 mg/kg rat
Ethanol	3450 mg/kg mouse; 7060 mg/kg rat
Isopropanol	4396 mg/kg rat
Limestone	6450 mg/kg rat

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: >1400000 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

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

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

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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.