

MATERIAL SAFETY DATA SHEET**SECTION 1 — PRODUCT IDENTIFICATION****Product identifier:** 0082–REGAL GLASS & MIRROR CLEANER**WHMIS Classification:** D1B, D2B**Product use:** Cleaner.**Product Code Number:** 42595, 42596, 42598**MSDS Number:** 0082**Supplier name and address:**Armstrong Manufacturing Inc.
2485 Haines Road
Mississauga, Ontario L4Y 1Y7
(905) 566-1395**Manufacturer's name and address:**

Refer to Supplier

Emergency Telephone #: CANUTEC (613) 996-6666**SECTION 2 — CHEMICAL COMPOSITION/HAZARDOUS INGREDIENTS**

| <u>Ingredients</u> | <u>CAS #</u> | <u>% (weight)</u> | <u>LD₅₀</u> <u>mg/kg</u> <u>oral/rat</u> | <u>LD₅₀</u> <u>mg/kg</u> <u>skin/rabbit</u> | <u>LC₅₀</u> <u>ppm</u> <u>inh/rat</u> |
|---------------------------------|---------------------|--------------------------|--|---|---|
| Ethylene glycol monobutyl ether | 111-76-2 | 1-5 | 470 | 220 | 700 ppm/7H |
| Isopropyl alcohol | 67-63-0 | 1-5 | >4720 | >12900 | 12000 ppm/8H |

SECTION 3 — HAZARDS IDENTIFICATION*****POTENTIAL HEALTH EFFECTS*******Routes of entry:** Inhalation, ingestion, skin and eye contact.**Signs and symptoms of short-term (acute) exposure:**

Inhalation: Moderately irritating to the eyes, nose, throat and lungs. High concentration of vapours will cause irritation, or if inhaled as a mist. Excessive exposure may cause irritation to upper respiratory tract. (Nose and Throat). Ethylene Glycol butyl ether: In humans, symptoms may include headache. In animal, effects have been reported to the following organs: Blood (hemolysis), secondary effects to the kidney and liver. Human red blood cells have shown to be significantly less sensitive to hemolysis than those of rabbits or rats.

Skin contact: May cause irritation.

Eye contact: Contact can result in irritation.

Ingestion: Harmful if swallowed.

Effects of long-term (chronic) exposure: See Section 11. **Other important hazards:** Ethylene Glycol butyl ether: In long term animal studies, small but significant increases in tumors were observed in mice but not rats. The effects are not believed to be relevant to humans, If the material is handled in accordance to proper industrial handling, exposures should not pose a carcinogenic risk to man. Has been toxic to the fetus in lab animals at doses toxic to the mother. In animal studies, effects on reproduction have only been seen at doses that produced significant toxicity to the parent animal.

SECTION 4 — FIRST AID MEASURES**Inhalation:** Remove victim to fresh air. If symptoms persist, call a physician.**Skin contact:** Flush skin with plenty of water, for at least 15 minutes, while removing contaminated clothing. Call physician immediately. Wash contaminated clothing before reuse.

Eye contact: IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open.

Ingestion: Immediately call physician. DO NOT induce vomiting. Give several glasses of water. Never give anything by mouth if victim is unconscious or convulsing.

SECTION 5 — FIRE FIGHTING MEASURES

Fire hazards/conditions of flammability: Not flammable.

Flash point (Method): Not applicable. °C (°F)

Lower flammable limit (% by volume): n/ap

Upper flammable limit (% by volume): n/ap

Explosion data: *Sensitivity to mechanical impact:* Not sensitive. *Sensitivity to static discharge:* Not sensitive.

Oxidizing properties: None.

Auto-ignition temperature: None.

Suitable extinguishing media: As appropriate for burning of surrounding products.

Special fire-fighting procedures/equipment: n/ap

Hazardous combustion products: n/ap

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear adequate personal protective equipment.

Environmental precautions: No special precautions required.

Spill response/Cleanup: Recover and reuse as much of the product as possible.

Prohibited materials: None known.

SECTION 7 — HANDLING AND STORAGE

Safe handling procedures: Avoid contact with skin, eyes and clothing. Wear proper protective equipment.

Storage requirements: Store in a cool, dry area. Keep away from incompatible materials, (see Sect. 10)

Special packaging materials: Plastic containers.

SECTION 8 — EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ventilation and engineering controls: Mechanic ventilation should be adequate.

Respiratory protection: Normally not required.

Protective gloves: Rubber.

Eye protection: Safety glasses, or chemical goggles.

Other protective equipment: As required by workplace standards.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Physical form, color and odor: Clear blue liquid. Ammonia odor.

Odor threshold: n/av

pH: 10-11

RI: 2.9-3.1

Boiling point: n/av

Melting/freezing point: n/av

Vapour pressure: n/av

Solubility in water: Very soluble.

Coefficient of oil/water distribution: Essentially zero.

Specific gravity or relative density (water = 1): 0.99-1.00

Vapour density: n/ap

Volatile organic compounds (VOC's): n/av

Evaporation rate: n/ap

Percent Volatile by Weight: n/av

SECTION 10 — REACTIVITY AND STABILITY DATA

Stability and reactivity: Normally stable.

Conditions to avoid: Keep containers tightly closed, when not in use.

Materials to avoid: Oxidizing agents.

Hazardous decomposition products: None.

SECTION 11 — TOXICOLOGICAL INFORMATION

LD₅₀: Not established for this product. See Section 2 for values for ingredients.

LC₅₀: Not established for this product. See Section 2 for values for ingredients.

Exposure limits: ACGIH-TLV-TWA – Ethylene glycol monobutyl ether 20 ppm , Isopropyl alcohol 400 ppm

Carcinogenicity: None of the ingredients is listed by IARC, ACGIH, NTP, and OSHA as carcinogen.

Teratogenicity, mutagenicity, other reproductive effects: There is no human or animal information available on teratogenicity, reproductive toxicity, or mutagenicity.

Sensitization to material: Not reported.

Conditions aggravated by exposure: Skin conditions.

Synergistic materials: None known.

SECTION 12 — ECOLOGICAL INFORMATION

Environmental effects: None known.

SECTION 13 — WASTE DISPOSAL

Handling for disposal: Reuse if possible.

Methods of disposal: Follow local, provincial, state and federal regulations.

SECTION 14 — TRANSPORTATION INFORMATION

Shipping description: TDG - Not regulated.

Please note: This shipping description is of a general nature only. It does not consider package sizes, modes of transport and other specific circumstances. Appropriate regulations should be referenced, and handling for transportation of dangerous goods/hazardous materials should be performed by trained personnel only.

SECTION 15 — REGULATORY INFORMATION

WHMIS information: D1B, D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and this MSDS contains all the information required by the CPR.

SECTION 16 — OTHER INFORMATION

Prepared by: Armstrong Manufacturing Inc.

Telephone number: (905) 566-1395

Preparation date: October 1, 2015

References:

1. ACGIH, Threshold Limit Values and Biological Exposure Indices for 2003.
2. International Agency for Research on Cancer Monographs, Supplement 7, 1988.
3. Canadian Centre for Occupational Health and Safety. CHEMINFO database.
4. Material Safety Data Sheets from raw materials suppliers.
5. N. Irving Sax. Dangerous Properties of Industrial Materials, Seventh Edition.

n/ap Not applicable

n/av Not available

MT/dj