MATERIAL SAFETY DATA SHEET

SECTION 1 — PRODUCT IDENTIFICATION

Product identifier: 0385 – ProSeries Green Restroom Cleaner **WHMIS Classification:** E
Product use: Restroom Cleaner, Tile, Grout, Tubs, Sinks, Glass Shower Doors, (Inhibited Safe around Metal) De-Scaler, Bowl and Urinal Cleaner, Acid Replacement Technology
Product Code Number: 40582, 40583
MSDS Number: 0385

Supplier name and address:
Armstrong Manufacturing Inc
2485 Haines Road
Mississauga, ON 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

Ingredients	CAS #	% (weight)	LD_{50} mg/kg oral/rabbit	LD_{50} mg/kg skin/rabbit	LC_{50} ppm inh/mouse
Organic Salt	506-89-8	10-30	1121	n/av	n/av

SECTION 3 — HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

Routes of entry: Inhalation, ingestion, skin and eye contact.
Emergency Overview: Corrosive! Causes burns and eye damage.
Signs and symptoms of short-term (acute) exposure:
Inhalation: Irritating and/or corrosive to the eyes, nose, throat and lungs.
Skin contact: Prolonged or repeated contact can cause irritation.
Eye contact: Contact can result in corneal damage or blindness.
Ingestion: Harmful or fatal if swallowed. May burn mouth, throat and stomach.
Effects of long-term (chronic) exposure: See Section 11. **Other important hazards:** None reported.

SECTION 4 — FIRST AID MEASURES

Inhalation: Remove victim to fresh air. If symptoms persist, call a physician.
Skin contact: Immediately flush skin with plenty of water, for at least 15 minutes, while removing contaminated clothing. Call physician if irritation develops. Wash contaminated clothing before reuse.
Eye contact: IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Immediately call physician.
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. ^{o}C (^{o}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: Above 60°C/140°F acid action on most metals may release hydrogen, a highly flammable and explosive gas.
Hazardous combustion products: Thermal decomposition may yield oxides of carbon, nitrogen and chlorine. Hydrogen gas may be released upon contact with certain metals.

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. Restrict access to area until completion of clean up. Ensure trained personnel conduct clean up. Do not touch spilled material.
Prohibited materials: None known.

SECTION 7 — HANDLING AND STORAGE

Safe handling procedures: Keep out of reach of Children. Product is corrosive. Avoid contact with skin, eyes and clothing. Wear proper protective equipment, including rubber gloves.
Storage requirements: Store in a cool, dry area. Keep away from incompatible materials, (see Sect. 10)
Special packaging materials: Fiberglass/Plastic containers. Do not store in metal containers.

SECTION 8 — EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ventilation and engineering controls: Mechanic ventilation should be adequate.
Respiratory protection: Normally not required. Avoid breathing vapour or mist.
Protective gloves: Rubber or nitrile.
Eye protection: Chemical goggles or face shield..
Other protective equipment: As required by workplace standards.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Physical form, color and odor: Opaque light blue slightly viscous liquid. Floral odour.
Odor threshold: n/av
pH: <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): 1.040
Vapour density: n/av
Volatile organic compounds (VOC's): n/ap
Evaporation rate: n/ap **Percent Volatile by Weight:** n/av

SECTION 10 — REACTIVITY AND STABILITY DATA

Stability and reactivity: Normally stable.
Conditions to avoid: Avoid heating above 110°C. Keep containers tightly closed, when not in use.
Materials to avoid: Extremely hazardous in contact with chlorates and nitrates. Contact with hypochlorites, eg. Chlorine bleach, sulfides or cyanides will give off toxic gas. Avoid contact with oxidizers. Strong bases, reactive metals. When diluting DO NOT add water to the acid. Add acid to water.

Hazardous decomposition products: Thermal decomposition may yield oxides. of carbon, nitrogen, and chlorine. Hydrogen gas may be released with contact certain metals.

SECTION 11 — TOXICOLOGICAL INFORMATION

LD_{50}: Not established for this product. See Section 2 for values for ingredients.
LC_{50}: Not established for this product. See Section 2 for values for ingredients.
Exposure limits: ACGIH-TLV 5 ppm (Ceiling)
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: Product is corrosive. Low pH (acidity) of material is harmful to aquatic life.

SECTION 13 — WASTE DISPOSAL

Handling for disposal: Reuse if possible.
Methods of disposal: Use only licensed waste disposal services. Follow local, provincial, state and federal regulations.

SECTION 14 — TRANSPORTATION INFORMATION

Shipping description: TDG – Corrosive Liquids, Acidic, Organic, N.O.S., (Urea monohydrochloride), Class 8, UN3265, P.G. III, Placard –8-Corrosive
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: E

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: September 8, 2006

References:

1. ACGIH, Threshold Limit Values and Biological Exposure Indices for 2001.
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

DA/js