

MATERIAL SAFETY DATA SHEET**SECTION 1 — PRODUCT IDENTIFICATION****Product identifier:** 0277 –LIQUA DISH**WHMIS Classification:** D1B, E**Product use:** Cleaner.**Product Code Number:** 42601, 42602**MSDS Number:** 0277**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>
Potassium hydroxide	1310-58-3	15-40	273	1260	n/av
Sodium nitrilotriacetate	18662-53-8	10-30	830	n/av	n/av
Sodium silicate	1344-09-8	1-5	n/av	n/av	n/av

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:* High concentration of vapours will cause irritation, or if inhaled as a mist.*Skin contact:* Dangerous in case of skin contact. May cause tissue damage. Effects may be delayed.*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:** 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: 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: 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, dark pink liquid.

Odor threshold: n/av

pH: 13-14

Boiling point: n/av

Melting/freezing point: n/av

Vapour pressure: n/av

Solubility in water: Very soluble.

Coefficient of oil/water distribution: n/av .

Specific gravity or relative density (water = 1): 1.345

Vapour density: n/ap

AA: 11-12

TA: 12-13

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

Evaporation rate: n/av

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: Strong acids and reactive metals.

Hazardous decomposition products: Caustic fumes, oxides of nitrogen, hydrogen gas.

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 – Potassium hydroxide C 2 mg/m³ STEL

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. High pH (alkalinity) of material is harmful to aquatic life.

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 – Corrosive liquid, basic, inorganic, n.o.s., (Potassium Hydroxide), Class 8, UN3266, PG II

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, 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: January 26, 2014

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

MV/mt