MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT IDENTIFICATION

Product Name: **R-300 RINSE AID**

Product Use: Rinse aid for automatic dishwashers
WHMIS Class: B2, D2B

TDG Classification: Exempted as an aqueous solution of alcohol

Manufactured by:
Chemotec (PM) Inc.
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Emergency Phone: as above or call **CANUTEC** (613) 996-6666 in case of **chemical emergency only.**

SECTION 2: HAZARDOUS INGREDIENTS

Ingredients	CAS #	Wt %	TLV	LC_{50}	LD_{5O}
Ethoxylated polyoxypropylene	9003-11-6	10 - 30	n/a	n/a	5500 mg/kg (oral, rat)
Isopropyl alcohol	67-63-0	10 - 30	400 ppm	16000 ppm/8h (oral, rat)	5045 mg/kg (oral, rat)

SECTION 3: PHYSICAL DATA

Boiling Point (^{o}C): 100
Vapor Pressure (mm Hg): n/a
Vapor Density (Air = 1): n/a
Solubility in Water: Complete
Physical State: Liquid
Appearance and Odor: Red liquid with characteristic odor.

Specific Gravity (H_2O = 1): 0.95 at 20^{o}C
Volatile (Wt %): approx. 85%
Evaporation Rate (Water = 1): n/a
pH (as supplied): 3.5-4.5
Viscosity: approx. 1cps at 25^{o}C
Odor Threshold (ppm): n/a

SECTION 4: FIRE AND EXPLOSION DATA

Flammability: Flammable

Flash Point (TCC, ^{o}C): 34 LEL: 2.0% (IPA) UEL: 12% (IPA)

Hazardous Combustion Products: carbon monoxide, carbon dioxide, smoke

Autoignition Temperature (^{o}C): Not available.

Means of Extinction: Water, foam, dry chemicals, carbon dioxide.

Special Fire Hazards: Avoid contact with open flames and all other ignition sources. Firefighters should wear self-contained breathing apparatus.

SECTION 5: REACTIVITY DATA

Conditions for Chemical Instability: This product is stable under normal conditions. It does not polymerize.

Incompatible Materials: Strong acids, oxidizing agents, halogens and halogen compounds, aldehydes.

Reactivity, and Under What Conditions: Not available.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide and possibly aldehydes would be expected.

SECTION 6: TOXICOLOGICAL PROPERTIES

Route of Entry: Eyes, skin, ingestion and inhalation.

EFFECTS OF ACUTE EXPOSURE:

Eye: High concentrations in the air are irritating to humans within 3-5 minutes. Contact with liquid product produces stinging and burning sensations.

Skin: Repeated exposure to the skin may result in dermatitis resulting from a defatting action..

Ingestion: Small amounts swallowed incidental to normal handling operations are not likely to cause injury. Swallowing larger amounts may cause injury. May cause central nervous system effects, such as headache, nausea, vomiting, abdominal pain, dizziness, confusion and breathing difficulties. Signs and symptoms of excessive exposure may include: Facial flushing. Low blood pressure. Irregular heartbeats. Aspiration into the lungs during ingestion or vomiting may lead to chemical pneumonitis.

Inhalation: With good ventilation, single exposure is not likely to be hazardous. In poorly ventilated areas, vapors or mists may accumulate and cause respiratory irritation. Prolonged excessive exposure may cause adverse effects. Excessive exposure (400 ppm) to isopropanol may cause eye, nose and throat irritation. Incoordination, confusion, hypotension, hypothermia, circulatory collapse, respiratory arrest and death may follow a longer duration or higher levels. Observations in animals include middle ear lining damage upon exposure to vapours of isopropanol. However, the relevance of this to humans is unknown.

EFFECTS OF CHRONIC EXPOSURE:

Irritancy: Not available.

Skin Sensitization: Not available.

Carcinogenicity: None of the ingredients are known to be carcinogenic.

Teratogenicity, Reproductive Effects: Tests on laboratory animals indicate that concentrated isopropanol may produce adverse mutagenic and reproductive effects.

Mutagenicity: Tests on laboratory animals indicate that concentrated isopropanol may produce adverse mutagenic and reproductive effects.

Synergistic Materials: Isopropanol toxicity is synergistic with chloroform and carbon tetrachloride resulting in hepatotoxicity.

SECTION 7: PREVENTATIVE MEASURES

Gloves: Plastic or rubber gloves to manipulate large quantities of the pure product.

Eye Protection: Safety glasses with side shields to manipulate large quantities.

Respiratory Protection: Not required, if adequate ventilation is available.

Other Protective Equipment: Waterproof boots if large spill.

Engineering Controls: Shower and eye wash station if large quantities are manipulated. Provide adequate ventilation.

Leak and Spill Procedure: Wear personal protective equipment. Stop the leak. Pump the product into drum and resume cleaning by rinsing with water.

Waste Disposal: Dispose according to federal, provincial and municipal regulations.

Storage Requirements: Keep in original tightly closed containers, in a well ventilated room.

SECTION 8: FIRST AID

Eye: Immediately rinse with plenty of water for several minutes, keeping eyelids open and contact lenses removed. Seek medical attention if irritation occurs.

Skin: Rinse with water. Remove soiled clothes and wash before wearing.. Seek medical attention should an irritation develops.

Inhalation: Bring the person to fresh air.

Ingestion: Give plenty of water. Never give anything by mouth to an unconscious person. Do not induce vomiting. Seek immediate medical attention.

SECTION 9: PREPARATION INFORMATION

Date: 2011-09-19
Phone: (514) 729-6321

Prepared by:
Chemotec (PM) Inc.

Abbreviation :
n/a : not available