

TENNANT  
701 North Lilac Drive  
P.O. Box 1452  
Minneapolis, MN 55440-1452

# MATERIAL SAFETY DATA SHEET

## Formula 710 Multi-Surface Acid Cleaner



### EMERGENCY PHONE NUMBERS:

CHEMTREC: (800) 424-9300 (24 hrs)  
CANADA: CANUTEC (613) 996-6666 (24 hrs)

District of Columbia: (202) 483-7616 (24 hrs)  
MSDS Requests: (800) 553-8033

### PREPARATION INFO:

By: Kevin Hobbie (763) 540-1471 (days)  
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This Material Safety Data Sheet (MSDS) has been prepared in compliance with the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200. The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind expressed or implied is made with respect to the info contained herein.

<b>Issue Date:</b> October 27, 2005	<b>HAZARD RATING</b>	<b>NFPA</b>	<b>HMIS</b>	<b>NFPA</b>	<b>HMIS</b>	4 = Extreme	3 = High	0 = Insignificant
<b>Supersedes:</b> September 13, 2004	Health	3	2	Reactivity	0	2 = Moderate	1 = Slight	COR = Corrosive
<b>Printed:</b> 11/14/2005	Fire	1	1	Special	COR	X		X = Ask supervisor for guidance.

### \*\*\*\*\* I. IDENTIFICATION \*\*\*\*\*

**PRODUCT NAME:** Formula 710 Multi-Surface Acid Cleaner

**US DEPT OF TRANSPORTATION (GROUND):**

**UN#:** UN1760

**PACKAGING GROUP:** II

**PART NUMBER:** 609801, 612226

**HAZARD CLASSIFICATION:** Corrosive

**CHEMICAL FAMILY:** Acid Cleaner

**SHIPPING NAME:** Corrosive Liquid, N.O.S.

**MATERIAL USE:** Restroom Cleaner for Floors

(contains Phosphoric and Sulfamic Acid)

### \*\*\*\*\* II. PHYSICAL DATA \*\*\*\*\*

<b>BOILING POINT:</b>	212°F	/ 100°C	<b>FREEZE POINT:</b>	0°F.	/ -18°C.
<b>DENSITY:</b>	1.1 kg/L		<b>% VOLATILE:</b>	69 by wt	
<b>SOLUBILITY IN WATER:</b>	Complete		<b>VAPOR PRESSURE:</b>	Not Available	mm Hg at 20 °C.
<b>ODOR THRESHOLD:</b>	Not Available		<b>pH:</b>	1.7 @ 10%	
<b>PHYSICAL FORM:</b>	Liquid		<b>VAPOR DENSITY:</b>	Not Available	<b>THAN AIR</b>
<b>APPEARANCE AND ODOR:</b>	Pink/Wintergreen		<b>COEFFICIENT WATER/OIL DISTRIBUTION:</b>	Not Available	
<b>EVAPORATION RATE:</b>	Slower	<b>THAN N-BUTYL ACETATE</b>	<b>VOC g/L (lb/gal):</b>	402 (3.35)	
<b>MECHANICAL IMPACT:</b>	Not Available		<b>STATIC DISCHARGE:</b>	Not Available	

### \*\*\*\*\* III. INGREDIENTS \*\*\*\*\*

All components are included in the EPA Toxic Substances Control Act (TSCA) Chemical Substance Inventory. Hazardous ingredients, defined as Controlled Products by Canadian WHMIS, are identified by (HSD) after the chemical ingredient. This product has been classified in accordance with the hazard criteria of the CPR (Controlled Products Regulations) and the MSDS contains all of the information required by the CPR.

<u>CHEMICAL</u>	<u>CAS #</u>	<u>% W</u>	<u>OSHA PEL</u> <u>ppm</u>	<u>ACGIH TLV</u> <u>TWA ppm</u>	<u>ACGIH TLV</u> <u>STEL ppm</u>	<u>LD50</u>	<u>LC50</u> <u>INHALATION</u>
Nonionic Surfactant	9016-45-9	5-10	Not Available	Not Available	Not Available	3000 mg/kg (oral rat) >3 g/kg (skin rabbit)	Not Available
Nonionic Surfactant	68987-81-5	5-10	Not Available	Not Available	Not Available	Not Available	Not Available
Citric Acid (HSD)	77-92-9	5-10	Not Available	Not Available	Not Available	Not Available	Not Available
Dipropylene Glycol	34590-94-8	10-20	100	100	150	5220 mg/kg (oral rat)	>10000 mg/L (96 hrs fathead minnow)
Monomethyl Ether (HSD)						13000-14000 mg/kg (skin rabbit)	
Phosphoric Acid (HSD)	7664-38-2	1-5	1 mg/m <sup>3</sup>	1 mg/m <sup>3</sup>	3 mg/m <sup>3</sup>	Not Available	Not Available
Sulfamic Acid (HSD)	5329-14-6	1-5	Not Available	Not Available	Not Available	Not Available	Not Available

### SARA Title III Section 313 Information:

Components present in this product at a level which could require reporting under this statute are:

Phosphoric Acid - CAS #7664-38-2 <5% by wt.

### California Proposition 65 Information:

This product contains the following chemicals that have been designated as cancer and/or reproductive hazards under California Proposition 65.

None

CAS #123-91-1

\*\*\*\*\* IV. FIRE AND EXPLOSIVE HAZARD DATA \*\*\*\*\*

**FLAMMABLE:** No **FLASH POINT:** 170°F / 76°C Setaflash  
**FLAMMABLE LIMITS:** % LEL: Not Available % UEL: Not Available **AUTOIGNITION TEMPERATURE:** Not Available / Not Available  
**EXTINGUISHING MEDIA:** Use National Fire Protection Association (N.F.P.A.) Class B extinguishers (carbon dioxide, dry chemical or foam).  
**SPECIAL FIRE FIGHTING PROCEDURES:**  
Water may be ineffective, but may be used to cool closed containers to prevent pressure buildup or possible auto ignition when exposed to extreme heat (fog nozzles preferred). Wear self-contained breathing apparatus.  
**UNUSUAL FIRE EXPLOSION HAZARD:**  
Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Closed containers may explode when exposed to extreme heat. Do not apply to hot surfaces.

\*\*\*\*\* V. REACTIVITY DATA \*\*\*\*\*

**STABILITY:** Stable **HAZARDOUS POLYMERIZATION (May Occur/Will Not Occur):** Will Not  
**CONDITIONS TO AVOID:** Not Available  
**INCOMPATIBILITY (materials to avoid):** Strong alkali.  
**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon dioxide, carbon monoxide and oxides of phosphorous, nitrogen, sulfur, ammonia or amines.

\*\*\*\*\* VI. HEALTH HAZARD DATA \*\*\*\*\*

**EFFECTS OF OVEREXPOSURE:** **THRESHOLD LIMIT VALUE - See Section III for individual ingredients.**  
**PRIMARY ROUTES OF ENTRY:** Inhalation & Skin Contact  
**SKIN CONTACT/ABSORPTION:** Skin contact may cause severe irritation. Prolonged or repeated skin contact may cause burns.  
**EYE CONTACT:** Extremely irritating with possible permanent eye injury. During application of this product, contact lenses should NOT be worn.  
**INGESTION (Swallowing):**  
Contains materials which will cause a burning sensation, gastric upset, diarrhea and severe inflammation to mucous membranes.  
**INHALATION (Breathing):**  
Slight headache. May burn nasal passages.  
**SUPPLEMENTAL HEALTH INFORMATION:**  
Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling this product may be harmful or fatal.

\*\*\*\*\* VII. EMERGENCY AND FIRST AID PROCEDURES \*\*\*\*\*

**SKIN CONTACT:** Wash immediately with mild soap and water. Rinse thoroughly with cool water.  
**EYE CONTACT:** Flush immediately with water for 15 minutes; CALL A PHYSICIAN.  
**INGESTION (Swallowing):** CALL A PHYSICIAN OR POISON CONTROL CENTER IMMEDIATELY. DO NOT attempt to induce vomiting, give two glasses of water.  
**INHALATION (Breathing):** Remove to fresh air.

\*\*\*\*\* VIII. PREVENTIVE MEASURES \*\*\*\*\*

**SPILL OR LEAK PROCEDURES:** **STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:**  
Absorb with inert material (sand, vermiculite, etc.). Sweep or scoop up and put in disposal container. Flush area with water; prevent washings from entering waterways.  
**WASTE DISPOSAL METHOD:** Dispose of in accordance with federal, state and local regulations.  
**SPECIAL PROTECTION INFORMATION:** **RESPIRATORY PROTECTION and VENTILATION:**  
Unless air monitoring demonstrates vapor/mist levels above applicable limits, no respirator is required. If respirator is required, the appropriate, properly fitted respirator (NIOSH/MSHA approved) should be worn during application. Follow respirator manufacturers directions for respirator use.  
Local exhaust.  
**PROTECTIVE GLOVES (specify type):** **EYE PROTECTION (specify type):**  
Impervious gloves; i.e., rubber, nitrile Chemical splash goggles  
**SKIN PROTECTION:** Impervious gloves, chemical splash goggles, and protective clothing.  
**SPECIAL PRECAUTIONS:** **PRECAUTIONS TO BE TAKEN IN HANDLING OR STORAGE:**  
Store inside in a cool (below 100°F or 37.5°C), dry place.  
**OTHER PRECAUTIONS:** Do not take internally. Avoid prolonged contact with skin; contaminated clothing should be removed immediately. Avoid free fall of liquid in excess of a few inches.