

# MATERIAL SAFETY DATA SHEET

Product Name : 681

Date Issued : January 17, 2012

## SECTION 1 : PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** 681  
**Formula :** Multi-component mixture

**Chemical Synonym / C# :** c681  
**Chemical Family:** Acidic detergent

**Supplier :** Specialty Chemicals Inc. 208 Widedon Landing Hilton, NY 14468

**Information Telephone :** (585)752-2320

**Emergency Telephone :** (607)529-3218

## SECTION 2 : COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredient(s)	CAS #	% (w/w)	ACGIH TLV (mg/m3)	
			TWA	STEL
Phosphoric Acid	7664-38-2	< 30.0	1	3
2-Butoxyethanol	111-76-2	< 1.0	121 (skin)	-

Unlisted components are considered non-hazardous as per 29CFR1910.1200g2C. See section 15 for specific state right-to-know information if applicable.

## SECTION 3 : HAZARD IDENTIFICATION

**Emergency Overview :** Danger! Causes eye and skin burns. May be harmful if swallowed. Read the entire MSDS for a more thorough evaluation of the hazards.

### **POTENTIAL HEALTH EFFECTS:**

**Eye Contact:** This product causes eye burns. Injury may be permanent.

**Skin Contact:** This product causes skin burns based on physical properties. It may not produce an immediate burning sensation upon skin contact, delaying the awareness of the worker that contact has occurred.

**Inhalation:** Breathing of vapor or mist may be irritating to the respiratory tract.

**Ingestion:** This product may be harmful if swallowed. May cause nausea, vomiting, abdominal discomfort, burns, and a burning sensation (burning behind the breast bone) based on physical properties.

## SECTION 4 : FIRST AID MEASURES

**Eye or Skin Contact:** Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If easy to do, remove any contact lenses. Get medical attention. Wash clothing and thoroughly clean shoes before reuse.

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Remove material from eyes, skin, and clothing.

**Ingestion:** If swallowed, do not induce vomiting. Offer a glass of water to drink. Get medical attention. Contact a Poison Control Center. Never give anything by mouth to an unconscious person.

## SECTION 5 : FIRE FIGHTING MEASURES

**Flash Point :** None    **Method Used:** N/A    **Flammable Limits:** LEL =N/A    **UEL =N/A**

**Extinguishing Media:** none required

**Fire Fighting Procedures:** Use caution when fighting any fire. Adequate respiratory protection is essential.

**Unusual Fire and Explosion Hazards:** May react with metals to liberate hydrogen, a flammable gas.

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## SECTION 6 : ACCIDENTAL RELEASE MEASURES

**Steps to be taken in case material is released or spilled:** Contain large spills with dikes and transfer the material to appropriate containers for reclamation or disposal. Absorb remaining material or small spills with an inert material and then place in a chemical waste container.

**Deactivating Chemicals:** Neutralize washings with a base such as soda ash or lime. Flush residual spill area with large amounts of water.

## SECTION 7 : HANDLING AND STORAGE

**Handling:** Do not get in eyes, on skin, or on clothing. Avoid breathing mist or vapor. Do not taste or swallow. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.

**Storage Requirements:** Store in plastic, rubber-lined, or 316 stainless steel tanks designed for phosphoric acid. Store drums away from heat and out of direct sunlight.

## SECTION 8 : EXPOSURE CONTROLS / PERSONAL PROTECTION

**Respiratory Protection:** Avoid breathing vapor or mist. Use NIOSH/MSHA approved respiratory protection equipment (full facepiece recommended) when airborne exposure limits are exceeded. If used, full facepiece replaces the need for face shield and/or chemical goggles. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by NIOSH/MSHA or the manufacturer. Respiratory protection programs must comply with 29 CFR1910.134.

**Ventilation / Local Exhaust / Mechanical Recommendations:** Provide natural or mechanical ventilation to minimize exposure. The use of local mechanical exhaust ventilation is preferred at sources of air contamination such as open process equipment. Consult NFPA Standard 91 for design of exhaust systems.

**Skin Protection:** Wear appropriate protective clothing and chemical resistant gloves to prevent skin contact. Consult the glove/clothing manufacturer to determine the appropriate type glove/clothing for a given application. Wear chemical goggles, a face shield, and chemical resistant clothing when splashing is likely. Wash immediately if skin is contaminated. Remove contaminated clothing promptly and launder before reuse. Clean protective equipment before reuse. Provide a safety shower at any location where skin contact can occur. Wash thoroughly after handling.

**Eye Protection:** Where there is potential for eye contact, wear goggles and have eye flushing equipment immediately available.

**Exposure Guidelines:** See section 2 for ACGIH recommendations for each hazardous ingredient.

## SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

**Appearance / Odor:** Clear red liquid, odor nil.

**Water Solubility:** Complete

**Specific Gravity:** 1.17

**Boiling Point (°F):** 212+

**% volatile:** N/A

**Vapor Density(air=1):** N/A

**pH (1%):** < 3.0

**Evaporation Rate(water=1):** N/A

**Vapor Pressure(mmHg):** N/A

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## SECTION 10 : STABILITY AND REACTIVITY

**Hazardous Decomposition Products:** None known.

**Chemical Stability:** Product is stable under normal conditions of storage and handling.

**Materials to Avoid:** Avoid contact with metals which may liberate flammable hydrogen gas. Avoid contact with materials such as sulfides and sulfites which could release toxic gasses. Be cautious in mixing with strong bases because high heat of reaction can generate steam.

**Hazardous Polymerization:** Will not occur.

## SECTION 11 : TOXICOLOGICAL INFORMATION

**Toxicological Data (as phosphoric acid):** Due to its acidity, this product is corrosive to the eyes and skin. This material may not produce an immediate burning sensation upon skin contact, delaying the awareness of the worker that contact has occurred.

Data for concentrated **Phosphoric Acid (75% strength)** are given below :

Oral - rat LD 50 : 4,400 mg/kg; slightly toxic

Dermal - rabbit LD 50 : > 3,160 mg/kg; slightly toxic

Eye Irritation - rabbit (24-hr. exposure) : corrosive

Skin Irritation - rabbit (24-hr. exposure) : corrosive

DOT Skin Corrosion - rabbit (4-hr. exposure) : non-corrosive

The results of single exposure tests indicate that this concentration (75%) of Phosphoric Acid are slightly toxic orally, and no more than slightly toxic after skin application. Following a 24-hour exposure, irreversible eye and skin damage occurred at this concentration (75%) of Phosphoric Acid.

Phosphoric Acid has produced no genetic changes in standard tests using bacterial cells.

Phosphoric Acid is severely corrosive to steel based on DOT, 49 CFR criteria.

Phosphoric Acid has a low vapor pressure at room temperature and is not expected to present a significant inhalation hazard under ambient conditions. Phosphoric acid can, however, be irritating to the respiratory tract if inhaled as a mist or if the material is vaporized. Refer to section 2 for current ACGIH recommendations for Phosphoric Acid.

**Toxicological Data (as 2-Butoxyethanol):**

**Peroral :** rat LD50 : 2.68 (1.85 - 3.88) ml/kg

**Percutaneous :** rabbit LD50 24hr occluded contact : 0.63 (0.368 - 1.03) ml/kg

**Inhalation :** rat LC50 male : 486 (339-696) ppm

rat LC50 female : 450 (315-645) ppm

**Irritation :** skin : rabbit 24 hour uncovered = minimal erythema in 2/5; no irritation 3/5

eye : rabbit 0.5ml 15% dilution in water = moderate corneal injury.

eye : rabbit 0.005ml = severe corneal injury and iritis.

**Carcinogenicity:** This product does not contain any materials considered to be carcinogenous according to OSHA, NTP, IARC, or ACGIH.

## SECTION 12 : ECOLOGICAL INFORMATION

**Exotoxicological Information: (as Phosphoric Acid) = 96-hr. LC 50 Mosquitofish : 138mg/L :**  
Practically non-toxic.

**Environmental Effects (as Phosphoric Acid) :** No data found.

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**Persistence and Degradation (as Phosphoric Acid) :** No specific biodegradation test was located in a search of the available scientific literature. It was reported in the literature that while acidity of this material may be reduced readily in natural waters, the phosphate may persist indefinitely.

**Exotoxicological Information (as 2-Butoxyethanol):**

Toxicity to micro-organisms: Bacterial/NA IC50 > 5000 mg/l

Toxicity to Aquatic Invertebrates : Daphnia LC50 48 h > 1000 mg/l

Toxicity to fish : Fathead minnow LC50 96 h = 1700 mg/l

**Environmental Fate (as 2-Butoxyethanol):**

**BOD (% oxygen consumption) :** Day 5 = 26%, Day 10 = 74%, Day 20 = 88%

## SECTION 13 : DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Consult state and local regulations regarding the proper disposal of this material. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations.

**Is the unused product a RCRA hazardous waste (40CFR261.33) if discarded?** No

**If yes, the RCRA ID number is :** N/A

## SECTION 14 : TRANSPORTATION INFORMATION

**Transportation Emergency Telephone Number:** 3E 24 hour number : (866)302-6855\*

\*Please refer to c# referenced in section 1 of this msds.

**DOT Proper Shipping Name:** Corrosive liquid, acidic, inorganic, N.O.S. (contains Phosphoric Acid)

**DOT Hazard Class / Product Identification Number / Packing Group / DOT Label:**

8 / UN3264 / PGIII / Corrosive

## SECTION 15 : REGULATORY INFORMATION

### US FEDERAL REGULATIONS :

**TSCA (Toxic Substances Control Act) Status :** TSCA (United States) The intentional ingredients of this product are listed.

**CERCLA RQ - 40 CFR 302.4(a) :**

<u>Component</u>	<u>RQ (lbs)</u>
PHOSPHORIC ACID	5000

**SARA 302 Components - 40 CFR 355 Appendix A**

<u>Section 302 Component(s)</u>	<u>TPQ (lbs)</u>	<u>RQ (lbs)</u>
none		

**SARA 311/312 Classification - 40 CFR 370.2 :**

(as Phosphoric Acid) : Acute Health Hazard

(as 2-Butoxyethanol) : delayed hazard, fire hazard, immediate health hazard

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## SARA 313 Components - 40 CFR 372.65:

### Section 313 Component(s)

	<u>CAS #</u>	<u>%</u>
Phosphoric Acid	7664-38-2	< 30.0
Glycol Ether	None	< 1.0

## INTERNATIONAL REGULATIONS:

None known as **Phosphoric Acid**

### **Inventory Status (as 2-Butoxyethanol)**

2-Butoxyethanol is on the following lists : European Inventory of Existing Commercial Chemical Substances (EINECS), CEPA - Domestic Substances List (DSL)

## STATE AND LOCAL REGULATIONS:

**California Safe Drinking Water Act (Prop. 65) Listing :** None listed.

### **State Right-To-Know :**

**2-Butoxyethanol** is on the following lists : Massachusetts (Hazardous Substances Disclosure by Employers), Pennsylvania (Worker and Community Right-to-Know Act)

## SECTION 16 : OTHER INFORMATION

**NFPA Rating :**      **HEALTH: 2**      **FLAMMABILITY: 0**      **REACTIVITY: 1**

NFPA hazard degree designation 704: 4 = extreme, 3 = high, 2 = moderate, 1 = slight, 0 = none.

*Information and data compiled to compose this MSDS is correct to the best of our knowledge as of the printed date, and is offered solely for your consideration, investigation, and verification.*