**----- MATERIAL SAFETY DATA SHEET -----**

**AURICAL COMPANY 383 BEACH ROAD BURLINGAME, CA 94010-2005**

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**This information is believed to be accurate and represents the best information cur­rently available to us. however, we make no warranty of merchantability, or fitness for any par­ticular use, or any other warranty, express or implied, with respect to this information, and we assume no liability resulting from the use of this information. Users should make their own investigations to determine the suitability of the infor­mation for their par­ticular needs and purposes.**

**-----SUBSTANCE IDENTIFICATION-----**

**SUBSTANCE: pH 2.00 High Temperature Calibrating Buffer**

**Trade names/synonyms: This material is also known as Catalog Number 10-6020-P**

**Cercla ratings (scale 0-3): health=0 fire=0 reactivity=0 persistence=0**

**Nfpa ratings (scale 0-4): health=0 fire=0 reactivity=0**

**-----COMPONENTS AND CONTAMINANTS---**

**Component: sodium citrate CAS# 6132-04-3 Percent: <1.0**

**Component: citric acid CAS #5949-29-1 <1.0 %**

**Component: water CAS# 7732-18-5 percent: >98**

**Other contaminants: none**

**Exposure limits:**

**No occupational exposure limits established by osha, acgih or niosh.**

**-----PHYSICAL DATA-----**

**Description: clear, colorless liquid..**

**Approx. boiling point: 212°F (100°C). Approx. melting point: 32°F (0°C)**

**Vapor pressure: 14 torr @20°C Evap. Rate: (ether=1) >1**

**pH: 2.0 Solubility in water: complete Vapor density: 0.7 (H2O)**

**-----FIRE AND EXPLOSION DATA-----**

**Fire and explosion hazard: No fire hazard when exposed to heat or flame.**

**Flash point: not applicable**

**Fire fighting media: dry chemical, carbon dioxide, water spray or regu­lar foam. (1990 emergency response guidebook, dot p-5800.5) For larger fires, use water spray, fog or regular foam. (1990 emergency response guidebook, dot p-5800.5)**

**Fire fighting: Move container from fire area if it can be done without risk. Do not scatter spilled material with high-pressure water streams. Dike fire-control water for later disposal . (1990 emergency response guidebook, dot p-5800.5 Pg. 31) Use agents suitable for the type of surrounding fire. Avoid breathing hazardous vapors, stay upwind of the fire.**

**-----TOXICITY-----**

**citric acid**

**Carcinogen status: none.**

**Local effects: irritant - inhalation, skin, eye.**

**Acute toxicity level: no data available.**

**Target effects: no data available.**

 **-----HEALTH EFFECTS AND FIRST AID-----**

**INHALATION:**

CITRIC ACID: IRRITANT.

**ACUTE EXPOSURE - MAY CAUSE IRRITATION.**

**CHRONIC EXPOSURE - REPEATED OR PROLONGED EXPOSURE MAY CAUSE IRRITA­TION.**

**FIRST AID - REMOVE FROM EXPOSURE AREA TO FRESH AIR IMMEDIATELY. IF BREATHING HAS STOPPED, PERFORM ARTIFICIAL RESPIRATION. KEEP PERSON WARM AND AT REST. TREAT SYMPTOMATICALLY AND SUPPORTIVELY. GET MEDI­CAL ATTENTION IMMEDIATELY.**

**SKIN CONTACT:**

CITRIC ACID: IRRITANT.

**ACUTE EXPOSURE - MAY CAUSE IRRITATION.**

**CHRONIC EXPOSURE - REPEATED OR PROLONGED EXPOSURE MAY CAUSE DERMATITIS.**

**FIRST AID - REMOVE CONTAMINATED CLOTHING AND SHOES IMMEDIATELY, WASH AFFECTED AREA WITH SOAP OR MILD DETERGENT AND LARGE AMOUNTS OF WATER UNTIL NO EVIDENCE OF CHEMICAL REMAINS (APPROXIMATELY 15-20 MINUTES). GET MEDICAL ATTENTION IMMEDIATELY.**

**EYE CONTACT:**

CITRIC ACID: IRRITANT.

**ACUTE EXPOSURE-DIRECT CONTACT MAY CAUSE IRRITATION, REDNESS AND PAIN.**

**CRONIC EXPOSURE-REPEATED OR PROLONGED EXPOSURE MAY CAUSE CONJUNCTIVITIS**

**FIRST AID - WASH EYES IMMEDIATELY WITH LARGE AMOUNTS OF WATER OR NORMAL SALINE, OCCASIONALLY LIFTING UPPER AND LOWER LIDS UNTIL NO EVIDENCE OF CHEMICAL REMAINS (APPROXIMATELY 15-20 MINUTES). GET MEDICAL ATTENTION IMMEDIATELY.**

**INGESTION**

CITRIC ACID: IRRITANT.

**ACUTE EXPOSURE** - **MAY CAUSE NAUSEA, VOMITING AND DIARRHEA.**

**CRONIC EXPOSURE - NOT REPORTED TO OCCUR IN HUMANS**

**FIRST AID - IF VICTIM IS CONSCIOUS, IMMEDIATELY GIVE 2-4 GLASSES OF WATER, AND INDUCE VOMITING BY TOUCHING FINGER TO BACK OF THROAT, GET MEDICAL ATTENTION IMMEDIATELY.**

**-----REACTIVITY-----**

**Reactivity: stable under normal temperatures and pressures.**

**Incompatibilities: NONE KNOWN WHILE IN SOLUTION.**

**Decomposition: NONE KNOWN WHILE IN SOLUTION.**

**Polymerization: NONE KNOWN WHILE IN SOLUTION.**

**-----STORAGE AND DISPOSAL-----**

**Observe all federal, state and local regulations when storing or disposing of this substance. for assistance, contact the district director of the environmental protection agency.**

**-----PROTECTIVE EQUIPMENT-----**

**When using, wear eye protection to prevent contact.**