UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

JUNE 25, 1987

Mr. Mitchell Martin
Preservation Products Inc.
10611 Harwin Drive, Suite 400
Houston, Texas 77036

Dear Mr. Martin:

Your letter of June 11, 1987, requested clarification as to whether your concentrated hydrochloric acid is covered by EPA Hazardous Waste No. F021. This acid is produced from the hydrogen chloride gas, which is a co-product of pentachlorophenol manufacture.

Materials produced intentionally, and which in their existing state are ordinarily used as commodities in trade by the general public, are defined as co-products and not by-products (40 CFR 261.1(c)(3). These co-products are not solid wastes and hence are not hazardous wastes. The hydrochloric acid produced as a co-product from pentachlorophenol manufacture is therefore, not a F021 waste.

If you have any further questions, please call Doreen Sterling of my staff at 202-475-6775.

Sincerely,

Matthew Straus, Chief
Waste Characterization Branch

FaxBack# 11260

June 11, 1987

Mr. Matt Strauss, Chief
Waste Characterization Branch (WH562B)
U. S. Environmental Protection Agency
401 M Street S.W.
Washington D.C. 20460

Dear Mr. Strauss,

I recently spoke with Mr. Bob Scarberry of your office regarding one of our customers concerns regarding the definition of the F201 classification for pentachlorophenol manufacturing wastes, and he asked that I put our request in writing to expedite a response.

Our concentrated hydrochloric acid is manufactured from the hydrogen chloride gas which is a co-product obtained during the manufacture of pentachlorophenol. The raw acid contains traces of phenol and is passed through activated carbon to achieve 0 to 3 ppm phenol in the finished product.

The waste carbon used to scrub the hydrochloric acid is specifically exempted from the F201 classification, however our customer says the acid obtained after passing through the carbon is not specifically exempted and they fear local agencies, etc., may construe that the acid is also F201 waste (as they have done).

They have, therefore, asked us to obtain a letter of clarification from EPA to assure them that the acid is also exempt.

We realize that if acid were actually contaminated with any pentachlorophenol manufacturing waste it would be considered F201, but this is not the case.

Mr. Scarberry said that it will take a while to prepare a letter (our address and telephone number is on the top of this letter), however a phone call to us and our customer could be obtained rather quickly. We are requesting, as soon as possible, a phone call indicating that the acid is also exempt. If you have any additional questions, please do not hesitate to call.

Sincerely,
Preservation Products, Inc.

Mitchell Martin
Environmental Affairs

enclosures

HYDROCHLORIC ACID MATERIAL SAFETY DATA SHEET

Manufactured by: Preservation Products, Inc.
10611 Harwin Drive, Suite 400
Houston, Texas 77036 (713) 988-9252

1. PRODUCT IDENTIFICATION

Name……22 Be Hydrochloric acid; Muriatic Acid
Chemical Formula……HCI
I.D. Number…….UN 1786
C.A.S. # ……7647-01-0
Hazard Class……Corrosive Liquid
Labels……..Corrosive

2. PHYSICAL DATA AND COMPOSITION

Molecular Weight (HC1): 36.46 Specific Gravity: 1.178

Boiling Point 108°C Vapor Pressure: 0.54 psia @ 90°F

pH: 1.1 (0.1N) Vapor Density: 1.3

Water Solubility: Complete - evolves heat

Appearance: Slightly Yellow to Yellow Fuming Liquid with a pungent odor.

Product Description: Hydrochloric acid consists of Hydrogen chloride gas dissolved in water.

Hydrogen Chloride.....35.5 %
Water…….64.5 %
Iron…….5 ppm
Other contaminants.....traces of materials commonly found in water: iron, sodium, carbonates, etc..

3. FIRE AND EXPLOSION HAZARD

Negligible fire and explosion hazard when exposed to heat or flame.

Flash Point: Non Combustible

Firefighting Media: Dry Chemical, Carbon Dioxide, Water Spray or Foam. For larger fires, use water spray, fog or alcohol foam.

Firefighting Procedures: Move containers from fire area if possible. Cool containers exposed to flames with water from side until well after the fire is out. Extinguish using agents suitable for type of fire. Use flooding amounts of water as fog. Do not spray water directly on hydrochloric acid. Cool containers with flooding amounts of water. Apply form as far a distance as possible. Avoid breathing corrosive vapors, keep upwind.

4. TOXICITY

1300 ppm/30 minutes Inhalation - Human LC_{Lo}
81 mg/kg unknown - man LD_{Lo}
3124 ppm/1 hour Inhalation - Rat LD_{50}
2124 ppm/30 minutes Inhalation - Mouse LD_{50}
900 mg/kg Oral - Rabbit LD_{50}
40 mg/kg Intraperitoneal - Mouse LD_{50}
Carcinogen Status: None

5. HEALTH EFFECTS

Acute Inhalation Exposure: Corrosive. 100 ppm immediately dangerous to life or health. Acute exposure: exposure to gas or fumes may cause immediate coughing, burning of the throat or nose, choking, dizziness, weakness and difficulty swallowing. Exposure above 5 ppm may be followed by inflammation and occasional ulceration of the nose, throat or larynx. Laryngitis, bronchitis, pneumonia, headache, palpitations, dental erosion, or nasal septum perforation. Concentrations above 50 ppm may be followed by bleeding of the nose and gums. Following a 6 to 8 hour latency period, laryngeal spasm or pulmonary edema with tightness in the chest, air hunger, dizziness, frothy sputum and cyanosis may occur. Shortness of breath and expectoration of blood may occur for several weeks following a single exposure. Pyloric obstruction may develop. Severe exposure may cause circulatory shock, asphyxiation, gastric hemorrhage, infection, cyanosis and death.

Chronic Inhalation Exposure: May cause erosion of teeth followed by jaw necrosis, bronchial irritation with chronic cough, frequent attacks of bronchial pneumonia, skin tenderness, gastrointestinal disturbances or mucous membrane irritation which may mimic viral infection of the upper respiratory tract characterized by fever and muscle tenderness.

Acute Skin Contact: CORROSIVE.

Direct contact may cause severe pain and brownish or yellow stains. Burns may be deep with sharp edges and heal slowly with scar tissue formation.

Chronic exposure may cause dermatitis.

Acute Ingestion: CORROSIVE.

May cause burns of the mouth, esophagus, and stomach with consequent pain, nausea, salivation, vomiting, chills, shock and thirst. May cause ulceration of all membranes and tissues which the acid contacts. After the initial exposure, fever may indicate perforation of the esophagus or stomach. In severe cases, circulatory collapse may occur which, if not corrected, may lead to renal, liver or heart failure.

5. HEALTH EFFECTS continued

Acute Eye Exposure: CORROSIVE

Exposure to vapors which escape from the solution are immediately irritating to the eyes. The vapors are so irritating that humans have rarely been subjected to harmful quantities. Contact with concentrated hydrochloric acid (liquid) has caused burns, edema, photosensitization, lacrimation, blurred vision and corneal destruction with pain. Severity of damage depends on the quantity, concentration and length of exposure. In humans the effects have ranged from redness and irritation of the conjunctiva to corneal opacification and to total erosion and loss of the eye.

6. FIRST AID

INHALATION: Remove from exposure to fresh air. If breathing has stopped, give artificial respiration. Maintain airway and blood pressure and administer oxygen if available. Keep affected person warm and at rest. Get medical attention immediately.

INJESTION: If victim is conscious and not convulsive, give him large quantities of water immediately to dilute the acid. Do not cause vomiting. If respiration is depressed, give oxygen. Get medical attention immediately.

SKIN: Remove contaminated clothing and shoes, directing a stream of water under clothing while it is being removed. Wash affected area with soap or mild detergent and large amounts of water until no evidence of chemical remains (15 minutes). In case of burns, cover area with sterile, dry dressing. Bandage securely, but not too tightly. Get medical attention.

EYES: Wash eyes immediately with large amounts of water, occasionally lifting upper and lower lids, until no evidence of chemical remains (15 minutes minimum). In case of burns, apply sterile bandages loosely, without medication, and get medical attention immediately.

7. REACTIVITY

Stable under normal temperatures and pressures. Forms dense, choking fumes on exposure to air.

MATERIALS TO AVOID

Oxidizers, acids, bases, alcohols, all organic and inorganic compounds and/or elements.

Hazardous Decomposition Products: Heating releases increasing amounts of Hydrogen Chloride (gas)

Conditions to Avoid: Contact with or storage with incompatible materials or excessive heat.

8. SPILL AND LEAK PROCEDURES

Soil Spill: Contain spill using pit, lagoon or dike using sandbags, soil, or foamed barrier such as polyurethane or concrete. Use cement powder or fly ash to absorb liquid mass. Neutralize spill with slaked lime, sodium bicarbonate or crushed limestone.
Air Spill: Knock down vapors with water spray. Keep upwind.
Water Spill: Neutralize with agricultural lime, slaked lime, crushed limestone or sodium bicarbonate.
Occupational Spill: Be sure to wear protective equipment before entering spill area or approaching spill. Hydrochloric acid in contact with incompatible materials may produce flammable and/or explosive reaction products. Do not touch spilled material. Stop leak if you can do it without risk. For small spills, take-up with sand or other absorbent material and place into containers for later disposal. For small dry spills, remove with a shovel and place in clean dry containers for further disposal. For larger spills, dike as close to the source of the as is practical to reduce the area contaminated. Keep unnecessary people away. Isolate hazard area.

9. PROTECTIVE EQUIPMENT

Ventilation: Provide local exhaust ventilation or general dilution ventilation to meet permissible exposure limits.

Exposure up to 50 ppm: Respirator - Chemical, acid gas cartridge
Exposure up to 100 ppm: Self-Contained Breathing Apparatus with a full face-piece operated in pressure - demand or other positive pressure mode.
Escape: Gas mask with an acid gas filter or self contained breathing apparatus.

Clothing: Wear appropriate protective clothing and equipment to prevent skin contact with the material.

Gloves: Must wear appropriate long sleeved rubber, plastic or protective gloves to prevent skin contact with this material. Leather or cloth gloves do not provide protection.

Eyes: Must wear splash-proof or dust-proof safety goggles to prevent hydrochloric acid from contacting the eyes. DO NOT WEAR CONTACT LENSES WHEN WORKING WITH HYDROCHLORIC ACID OR OTHER CHEMICALS.

This information is believed to be accurate and represents the best information currently available to Preservation Products, Inc. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.

03-30-87

HYDROCHLORIC ACID TYPICAL ANALYSIS SHEET

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PHYSICAL DATA AND COMPOSITION

Molecular Weight (HC1): 36.46
Gravity: 1.1789 - 0.003
Boiling Point 108^0C
Vapor Pressure: 0.54 psia @ 90°F
pH: 1.1 (0.1N)
Vapor Density: 1.3
Water Solubility: Complete - evolves heat
Appearance: Clear to Slightly yellow fuming Liquid with a pungent odor.

Typical Product Description: Hydrochloric acid consists of Hydrogen Chloride gas dissolved in water.

ANALYSIS

CURRENT TYPICAL VALUE	SPECIFICATION
Hydrogen Chloride…….35.00 %	35.5 ± 1.0
Water……..65.00 %	64.5 ± 1.0
Magnesium……..1600 ppm	
Sodium……..825 ppm	
Sulfate……..<0.2 ppm	
Sulfide……..<0.2 ppm	
Iron……<0.2 ppm	3.0 ppm maximum
Aluminum…….<0.1 ppm	
Phe??l…….2 ppm	20.0 ppm maximum
Heavy Metals…….ND	1.5 ppm maximum

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5-15-87