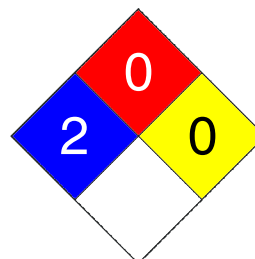


1. Product and Company Identification

Product Name Pro Ban-T, Citric Acid
CAS # Mixture
Product use Water Softener Resin Cleaner / pH adjuster
Manufacturer Pro Products LLC
 7201 Engle Road
 Fort Wayne, IN 46804-5875 US
 Phone 260-483-2519
 Emergency Phone: 1-800-424-9300 (CHEMTREC)

| LEGEND HMIS/NFPA | |
|---------------------|---|
| Severe | 4 |
| Serious | 3 |
| Moderate | 2 |
| Slight | 1 |
| Minimal | 0 |

| | |
|---------------------|-----|
| Health | / 2 |
| Flammability | 0 |
| Physical Hazard | 0 |
| Personal Protection | B |


2. Hazards Identification

Emergency overview CAUTION
CORROSIVE

Potential short term health effects

Routes of exposure Eye, Skin contact, Inhalation, Ingestion.

Eyes Causes chemical burns. May cause blindness.

Skin May cause chemical burns.

Inhalation Dust extremely irritating to respiratory tract.

Ingestion Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.

Target organs Eyes. Skin. Mucous membranes. Respiratory system.

Chronic effects Prolonged or repeated exposure can cause drying, defatting and dermatitis.

Signs and symptoms The product causes burns of eyes, skin and mucous membranes.

3. Composition / Information on Ingredients

| Ingredient(s) | CAS # | Percent |
|---------------|---------|----------|
| Citric acid | 77-92-9 | 60 - 100 |

4. First Aid Measures

First aid procedures

Eye contact Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention immediately.

Skin contact Brush away excess of dry material. Immediately flush with cool water for 15 minutes. Obtain medical attention if irritation persists. Wash contaminated clothing well before reuse or discard.

Inhalation If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.

Ingestion Do not induce vomiting. Rinse mouth with water, then drink one or two glasses of water. Obtain medical attention. Never give anything by mouth if victim is unconscious, or is convulsing.

General advice If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

5. Fire Fighting Measures

| | |
|---|--|
| Flammable properties | Not flammable by WHMIS/OSHA criteria. |
| Extinguishing media | |
| Suitable extinguishing media | Carbon dioxide. Water spray. Dry chemical. Foam. |
| Unsuitable extinguishing media | Not available |
| Protection of firefighters | |
| Specific hazards arising from the chemical | Not available |
| Protective equipment for firefighters | Firefighters should wear full protective clothing including self contained breathing apparatus. |
| Hazardous combustion products | May include and are not limited to: Oxides of carbon. |
| Explosion data | |
| Sensitivity to mechanical impact | Not available |
| Sensitivity to static discharge | Under certain conditions, airborne dust of citric acid can explode when ignited by an electrostatic spark, other high-voltage sparks or other ignition source. |

6. Accidental Release Measures

| | |
|--------------------------------|--|
| Personal precautions | Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak. |
| Methods for containment | Prevent entry into waterways, sewers, basements or confined areas. Use water spray to reduce vapors or divert vapor cloud drift. |
| Methods for cleaning up | Before attempting clean up, refer to hazard data given above. Use broom or dry vacuum to collect material for proper disposal without raising dust. Rinse area with water. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Large Spills: Wet down with water and dike for later disposal. After removal flush contaminated area thoroughly with water. |

7. Handling and Storage

| | |
|-----------------|--|
| Handling | Use good industrial hygiene practices in handling this material. Do not get this material in your eyes, on your skin, or on your clothing. |
| Storage | Keep out of the reach of children. Store in a closed container away from incompatible materials. |

8. Exposure Controls / Personal Protection

| | |
|---------------------------------------|---|
| Exposure limits | |
| Ingredient(s) | Exposure Limits |
| Citric acid | ACGIH-TLV TWA: 10 mg/m ³ OSHA-PEL TWA: 10 mg/m ³ |
| Engineering controls | General ventilation normally adequate. |
| Personal protective equipment | |
| Eye / face protection | Wear chemical goggles. |
| Hand protection | Rubber gloves. Confirm with a reputable supplier first. |
| Skin and body protection | As required by employer code. |
| Respiratory protection | Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. |
| General hygiene considerations | Use good industrial hygiene practices in handling this material. When using do not eat or drink. Wash hands before breaks and immediately after handling the product. |

9. Physical & Chemical Properties

| | |
|-------------------|----------------|
| Appearance | Crystals |
| Color | Clear to white |

| | |
|---|----------------|
| Form | Solid. |
| Odor | None to slight |
| Odor threshold | Not available |
| Physical state | Solid |
| pH | Not available |
| Melting point | Not available |
| Freezing point | Not available |
| Boiling point | Not available |
| Flash point | Not available |
| Evaporation rate | Not available |
| Flammability limits in air, lower, % by volume | Not applicable |
| Flammability limits in air, upper, % by volume | Not applicable |
| Vapor pressure | Not available |
| Vapor density | Not available |
| Specific gravity | Not available |
| Octanol/water coefficient | Not available |
| Auto-ignition temperature | Not available |
| Percent volatile | Not available |

10. Chemical Stability & Reactivity Information

| | |
|---|---|
| Chemical stability | Stable under recommended storage conditions. |
| Conditions to avoid | Do not mix with other chemicals. |
| Incompatible materials | Caustics. Oxidizers. Reducing agents. Metal nitrates |
| Hazardous decomposition products | May include and are not limited to: Oxides of carbon. |
| Possibility of hazardous reactions | Hazardous polymerization does not occur. |

11. Toxicological Information

Component analysis - LC50

| Ingredient(s) | LC50 |
|---------------|---------------|
| Citric acid | Not available |

Component analysis - Oral LD50

| Ingredient(s) | LD50 |
|---------------|----------------------------------|
| Citric acid | 5040 mg/kg mouse; 3000 mg/kg rat |

Effects of acute exposure

| | |
|-----------------------------|--|
| Eye | Causes chemical burns. May cause blindness. |
| Skin | May cause chemical burns. |
| Inhalation | Dust extremely irritating to respiratory tract. |
| Ingestion | Harmful if swallowed. May cause chemical burns to mouth, throat and stomach. |
| Sensitization | Not classified or listed by IARC, NTP, OSHA and ACGIH. |
| Chronic effects | Not classified or listed by IARC, NTP, OSHA and ACGIH. |
| Carcinogenicity | Not classified or listed by IARC, NTP, OSHA and ACGIH. |
| Mutagenicity | Not classified or listed by IARC, NTP, OSHA and ACGIH. |
| Reproductive effects | Not classified or listed by IARC, NTP, OSHA and ACGIH. |
| Teratogenicity | Not classified or listed by IARC, NTP, OSHA and ACGIH. |

12. Ecological Information

| | | |
|---|---------------|--|
| Ecotoxicity | See below | |
| Ecotoxicity - Freshwater Fish Species Data | | |
| Citric acid | 77-92-9 | 96 Hr LC50 Lepomis macrochirus: 1516 mg/L [static]; 96 Hr LC50 Leuciscus idus: 440 mg/L [static] |
| Ecotoxicity - Microtox Data | | |
| Citric acid | 77-92-9 | 15 Min EC50 Photobacterium phosphoreum: 14 mg/L |
| Ecotoxicity - Water Flea Data | | |
| Citric acid | 77-92-9 | 72 Hr EC50 Daphnia magna: 120 mg/L |
| Environmental effects | Not available | |
| Aquatic toxicity | Not available | |
| Persistence / degradability | Not available | |
| Bioaccumulation / accumulation | Not available | |
| Partition coefficient | Not available | |
| Mobility in environmental media | Not available | |
| Chemical fate information | Not available | |
| Other adverse effects | Not available | |

13. Disposal Considerations

| | |
|--|--|
| Waste codes | Not available |
| Disposal instructions | Review federal, provincial, and local government requirements prior to disposal. |
| Waste from residues / unused products | Not available |
| Contaminated packaging | Not available |

14. Transport Information

U.S. Department of Transportation (DOT)

Not regulated as dangerous goods.

Transportation of Dangerous Goods (TDG - Canada)

Not regulated as dangerous goods.

15. Regulatory Information

Canadian federal regulations This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Canada - WHMIS - Ingredient Disclosure List

| | | |
|-------------|---------|-----|
| Citric acid | 77-92-9 | 1 % |
|-------------|---------|-----|

US Federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

CERCLA/SARA Hazardous Substances - Not applicable.

Occupational Safety and Health Administration (OSHA)

| | |
|--|-----|
| 29 CFR 1910.1200 hazardous chemical | Yes |
|--|-----|

CERCLA (Superfund) reportable quantity

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

| | |
|--------------------------|---|
| Hazard categories | Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No |
|--------------------------|---|

| | |
|--|----|
| Section 302 extremely hazardous substance | No |
|--|----|

| | |
|---------------------------------------|-----|
| Section 311 hazardous chemical | Yes |
|---------------------------------------|-----|

| | |
|---|------------------------------|
| Clean Air Act (CAA) | Not available |
| Clean Water Act (CWA) | Not available |
| Safe Drinking Water Act (SDWA) | Not available |
| Drug Enforcement Agency (DEA) | Not available |
| Food and Drug Administration (FDA) | Not available |
| WHMIS status | Controlled |
| WHMIS classification | Class E - Corrosive Material |
| WHMIS labeling | |



State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

| Inventory name | | Inventory name | On inventory (yes/no)* |
|-----------------------------|--|---|-------------------------------|
| Country(s) or region | | | |
| Canada | | Domestic Substances List (DSL) | Yes |
| Canada | | Non-Domestic Substances List (NDSL) | No |
| United States & Puerto Rico | | Toxic Substances Control Act (TSCA) Inventory | Yes |

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

| | |
|-----------------------|---|
| Disclaimer | Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document. |
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