

MATERIAL SAFETY DATA SHEET

Pharmaco Solutions, Inc.
240 Loblolly Lane
Ellerbe, NC 28338
pharmacosolutions@windstream.net

FOR CHEMICAL EMERGENCY
Spill, Leak, Fire, Exposure, Accident
Call: CHEMTREC
800-424-9300

Section 1: Material Identification

Trade Name: Passivation Concentrate
Chemical Family: Acid Compound
Formula: Proprietary Cleaner

Section 2: Physical Data

Appearance & Odor: Straw colored liquid
Solubility in Water: Complete
pH Of Conc.: 1.5 – 2.0
Evaporation Rate: Less than Ether
Percent Volatile: Greater than 50%
Specific Gravity: 1.1

Section 3: Composition / Information on Ingredients

Ingredient	Percentage	CAS Number	PEL	TLV
Citric Acid	N/R	77-92-9	N/A	N/R

mg/m³ = Milligrams Per Cubic Meter
Approx = Approximately
TWA = Time Weighted Average

TLV = Threshold Limit Value
ppm = Parts Per Million

PEL = Permissible Exposure Limit
N/A = Not Applicable

Section 4: Fire and Explosion Hazard Data

Flash Point: None

Special Procedures: None

Unusual Fire & Explosion Hazards: Thermal decomposition may emit carbon monoxide, carbon dioxide, and/or low molecular weight hydrocarbons. Use full protective clothing and self-contained breathing apparatus.

Section 5: Health Hazard Data

*****Emergency Overview***:** Causes severe eye irritation, causes irritation to skin and respiratory tract. Harmful if swallowed.

Eye Contact: Highly irritating. Causes pain, tearing, reddening, and swelling. Small amounts may result in permanent damage and/or loss of vision.

Skin Contact: Prolonged or repeated exposure can cause irritation or burn skin. Symptoms include redness, itching, and pain. Allergic sensitization in susceptible individuals is possible.

Ingestion: Ingestion can cause damage to the mucous membranes or tissues with which contact is made. Ingestion of concentrated solutions of citric acid may cause more serious adverse

MATERIAL SAFETY DATA SHEET

Pharmaco Solutions, Inc.
240 Loblolly Lane
Ellerbe, NC 28338
pharmacosolutions@windstream.net

FOR CHEMICAL EMERGENCY
Spill, Leak, Fire, Exposure, Accident
Call: CHEMTREC
800-424-9300

effects, including burning of the mouth, throat, esophagus, and stomach. Calcium deficiency in blood may result in severe cases of ingestion.

Inhalation: Causes irritation to the upper respiratory tract and to lung tissue depending on the severity of exposure. Prolonged inhalation may be harmful.

Long Term or Chronic Exposure Effects

The effects of long-term, low level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the avoidance of all effects from repetitive acute exposure.

Section 7: Emergency and First Aid Procedures

Eye Contact: Immediately flush with directed stream of water for at least 15 minutes. Forcibly hold eyelids apart to ensure complete irrigation of all eye and lid tissue. **Get immediate medical attention.** Contact lens should not be worn when working with this material.

Skin Contact: Immediately flush affected skin with plenty of soap and water while removing contaminated clothing and boots. If burns develop or irritation persists, call a physician. Thoroughly clean contaminated clothing and boots before reuse, or discard.

Ingestion: Do not induce vomiting. Give victim a glass of water. **Get immediate medical attention.** Never give anything by mouth to an unconscious person.

Inhalation: Remove victim to fresh air. If victim is not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by a qualified person. Contact a physician.

Notes to Physician: Treatment is controlled by removal of exposure, followed by symptomatic and supportive care.

Section 8: Reactivity Data

Stability: Stable.

Incompatible Materials: Strong bases, alkali metals, metal nitrates, potassium tartrate, strong oxidizers, strong reducing agents.

Hazardous Decomposition: Upon decomposition, this product emits carbon monoxide, carbon dioxide, oxides of sulfur, and oxides of nitrogen

Hazardous Polymerization: Will not occur

MATERIAL SAFETY DATA SHEET

Pharmaco Solutions, Inc.
240 Loblolly Lane
Ellerbe, NC 28338
pharmacosolutions@windstream.net

FOR CHEMICAL EMERGENCY
Spill, Leak, Fire, Exposure, Accident
Call: CHEMTREC
800-424-9300

Section 9: Spill or Leak Procedures

Leak and Spill Procedures: Absorb spill with inert material (dry sand or earth) and use appropriate methods, shovels, brooms, and vacuums to clean up the spill and put into suitable storage container. Avoid runoff into storm sewers and ditches which lead to waterways. Follow government regulations.

Waste Disposal Method: Care must be taken when using or disposing of chemical materials and/or their containers to prevent environmental contamination. It is your duty to dispose of the chemical materials and/or their containers in accordance with all federal, state, or local laws and regulations.

Section 10: Exposure Controls/Personal Protection

Respiratory protection: Use NIOSH or MSA approved dust/mist respirator for routine work purposes when exposure to dusts/mists exceeds the permissible exposure limits. The respirator use limitations made by NIOSH and MSA or the manufacturer must be observed. Respiratory protection programs must be in accordance with 29 CFR 1910.134.

Ventilation: Local exhaust sufficient to maintain dust/mist levels below permissible exposure limit.

Eye protection: Close fitting chemical safety goggles or glasses with face shield. **Do not wear contact lenses.**

Skin protection: Chemical resistant gloves (Nitrile, neoprene, natural rubber). Consult your glove manufacturer for compatibilities. Impervious clothing, including boots, lab coat, apron or coveralls as appropriate to prevent skin contact.

Other protective equipment: Clothes should completely cover skin to avoid skin contact. Rubber boots, rubber apron, PVC clothing. Personal protective clothing and use of equipment must be in accordance with 29CFR 1910.133 & 29CFR 1910.132

Section 11: Toxicological Information

Toxicity Studies:

Toxicity studies have not been conducted on this product. However, toxicity literature surveys have been conducted on the ingredient(s) in section 2. The results are as follows:

Citric Acid (as dry material)

Oral: LD50 in rats - 3 g/kg.

Skin/Dermal: LD50 in rabbits 500 mg / 24 hr / mild

Eye Rabbit: 750µg / 24hr / Severe

Carcinogenicity:

- **OSHA:** No
- **NTP:** No
- **IARC:** No

MATERIAL SAFETY DATA SHEET

Pharmaco Solutions, Inc.
240 Loblolly Lane
Ellerbe, NC 28338
pharmacosolutions@windstream.net

FOR CHEMICAL EMERGENCY
Spill, Leak, Fire, Exposure, Accident
Call: CHEMTREC
800-424-9300

Section 12: Ecological Information

Ecological Information: No information found

Section 13: Transportation

DOT Hazard Class: None
DOT Shipping Name: Not regulated as dangerous goods
ID Number: None
Packing Group: None

Section 14: Regulatory Information

US Federal, State & International Regulations:

Citric Acid

OSHA: Hazardous by definition of Hazardous Communication Standard (29 CFR 1910.1200)

Sara 302 No
Sara 311/312 Yes
Sara 313 No

Toxic Substance Control Act (TSCA):

The chemical substances in this product are on the TSCA Section 8 Inventory.

This product contains chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States.

Section 15: Special Precautions

Handling and Storage:

- when handling, wear safety goggles;
- wear NIOSH or MSHA approved, dust/mist-type respirators, where mist may be generated;
- store in a dry place, keep container closed when not in use;
- store only in closed, properly labeled containers;
- never touch eyes or face with hands or gloves that may be contaminated with product;
- when making solutions, add this cleaner slowly to surface of water while stirring.

Other Precautions:

- use ventilation adequate to limit employee exposure;
- use all recommended safety and personal protective equipment;
- do not eat, drink, or smoke in work areas.
- do not get in eyes, on skin, or on clothing
- do not breathe mist
- do not swallow

SOURCES: MSDS Information from raw materials.

MATERIAL SAFETY DATA SHEET

Pharmaco Solutions, Inc.
240 Loblolly Lane
Ellerbe, NC 28338
pharmacosolutions@windstream.net

FOR CHEMICAL EMERGENCY
Spill, Leak, Fire, Exposure, Accident
Call: CHEMTREC
800-424-9300

PREPARED BY: Brian Sutton
UPDATE: January 11, 2010

The information contained herein is offered only as a guide to the handling of the specific material and has been prepared and compiled in good faith from sources considered to be dependable. The information is accurate and reliable to the best of our knowledge and belief, but is not guaranteed to be so. It is not intended to be all-inclusive and the manner and conditions of use and handling may involve other and additional considerations. No warranty of any kind is given or implied and Pharmaco Solutions will not be liable for any damages, losses, injuries or consequential damages which may result from the use or reliance on any information contained herein.



Technical Data Sheet

Passivation Concentrate

Citric Acid Cleaner

General Description

Passivation Concentrate is an acid cleaner formulated for cleaning and passivation of stainless steel alloys. **Passivation Concentrate** can be used in immersion and ultrasonic wash systems. **Passivation Concentrate** is designed for removal of contaminants and free iron from most stainless steel alloys, including austenitic, ferritic, and martensitic.

Normal Use

This product is diluted with water before usage at 8- 10% by weight. Determine the proper ratio of **Passivation Concentrate** based on the volume of the tank. Mix 1 part of **Passivation Concentrate** to 13 parts of water by volume. Operation temperatures are 120 degrees to 160 degrees Fahrenheit. Typical immersion times for removal of contaminants and free iron is 4-10 minutes, but testing should be done with your product to verify. Rinse the part thoroughly to remove residue, use DI water to prevent water spotting. Dry completely after rinsing. The pH should be between 1.8 to 2.2 for normal operation.

Advantages

1. Water based cleaner
2. Biodegradable
3. General purpose product, useful over a wide range of applications
4. Excellent rinsibility

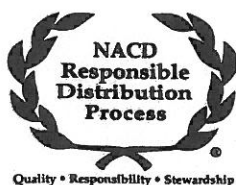
Handling and Safety Considerations

CONSULT MSDS SHEET ON THIS PRODUCT FOR HANDLING CONSIDERATIONS, HAZARD INFORMATION AND FIRST AID PROCEDURES

No Warranty, Expressed or Implied, Of Merchantability or Fitness for A Particular Purpose or Otherwise, Is Made. Buyer Assumes All Risk Of Use, Storage, Handling And Disposal. Chautauqua Metal Finishing Supply Shall Not Be Liable For Any Incidental Or Consequential Damages Arising Directly Or Indirectly In Connection With The Purchase, Use, Storage, Handling Or Disposal Of This Product.

(November 4, 2010)

Passivation Concentrate



***Divisions of Chautauqua Chemicals Co. Inc., 4743 Cramer Dr. , Ashville, NY 14710
(716) 763-4114 Phone and (716) 763-3555 Fax***