

Material Safety Data Sheet May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910:1200. Standard must be consulted for specific requirements.		U.S Department of Labor Occupational Safety and Health Administration (Non-Mandatory Form) Form Approved OMB No. 1218-0072	
Identity (as Used on Label and List) Citric Acid		The information contained herein is based on data considered accurate. However, no warranty of any nature is either expressed or implied with respect to the product or the data contained herein.	
Section I			
Manufacturer's Name Animal Science Products, Inc.		Emergency Telephone Number 1-800-424-9300 Chemtrec	
Address PO Box 631408 Nacogdoches Texas 75963-1408		Telephone Number for Information 1-936-560-0003	
		Date Prepared 11/10/2010	
		Signature of Preparer (Optional)	
Section II- Hazardous Ingredients / Identity Information			
Hazardous Components (Specific Chemical Identity; Common Name(s): Citric Acid Anhydrous >99% OSHA PEL: 15 mg/m ³ TWA (Total dust) 5 mg/m ³ TWA (Respirable fraction) ACGIH: 4 mg/m ³ TWA (Inhalable fraction) 1.5 mg/m ³ TWA (Respirable fraction)			
Section III- Physical/Chemical characteristics			
Boiling Point:	NA	Specific Gravity (H2O=1):	NA
Vapor Pressure (mm Hg.):	NA	Melting Point	307° F
Vapor Density (AIR=1):	NA	Evaporating Rate (Butyl Acetate=1)	NA
Solubility in Water: At 77° 162 g/100 ml			
Appearance and Odor: Colorless crystals, granules, or white powder; odorless, strong acid taste			
Section IV - Fire and Explosion Hazard Data			
Flash Point (Method Used): NA		Flammable Limits: NA	LEL: NA LEL NA
Extinguishing Media: Water fog, carbon dioxide, or dry chemical			
Special Fire Fighting Procedures: Firefighters should wear a self-contained breathing apparatus with full face piece operated in pressure-demand or other positive pressure mode.			
Unusual Fire and Explosion Hazard: Unusual Fire Fighting and Explosion Hazards: The dust of citric acid anhydrous and monohydrate can be explosive can be explosive under some conditions, in air. Where dust concentrations exist sources of ignition should be eliminated. CITRIC ACID POSES A SERIOUS DUST EXPLOSION HAZARD.			
Section V - Reactivity Data			
Stability: Stable under ordinary conditions of use and storage.		Conditions to Avoid: Heat, moisture and incompatible materials.	
Incompatibility: Potentially explosive reaction with metal nitrates, strong bases, and oxidizers. Citric Acid is compatible with reducing agents. Citric Acid when wet or in solution is corrosive to brass, copper, zinc, aluminum and their alloys, lead, cast iron and steel (not stainless steel)			
Hazardous Decomposition or Byproducts: Carbon dioxide and carbon monoxide are normal products of combustion. Incomplete combustion may produce irritating fumes and acrid smoke.			
Hazardous Polymerization: Will not occur.			
Section VI - Health Hazard Data			
Route(s) of Entry: Inhalation? Yes Skin? Yes Ingestion? Yes Eyes? Yes			
Health Hazards (Acute and Chronic): Eyes: Can cause irritation: Severe irritation of the eye indicated in rabbit eye testing. Skin: May cause irritation: Inhalation of dust may cause irritation of nasal and respiratory passages. Ingestion: In excess can cause gastrointestinal irritation. Oral LD (50) (mouse)- 504 mg/kg (3) (rat) 11700 mg/kg			
Section VII - Precautions for Safe Handling and Use			
Steps to Be Taken in Case Material is Released or Spilled: Vacuum or sweep up and shovel into containers. Workers should wear the protective gloves, goggles and body-covering clothing. Residual material may be wetted, neutralized with soda ash or Sodium Bicarbonate, diluted with water, and wet vacuumed into containers for disposal. Keep out of natural waterways.			
Waste Disposal Method: Subject to approval by federal, state, and local authorities unrecoverable product, dissolved in water, neutralized, and diluted by further addition of water may be washed to the sewer. With regard to citrate's effect on sewage treatment, citrate has been shown to be highly degradable, in laboratory- activated sludge systems. (0(2) consumptions, 98% of theoretical) and in trickling filters.			
Precautions to Be Taken in Handling and Storing : Store in closed containers to prevent dusting. No open flames, sparks, or other sources of ignition where dusty atmospheric conditions may exist.			
Other Precautions: None specified.			

Section VIII – Control Measures		
Respiratory Protection (Specify Type): If needed use a NIOSH/MSHA jointly approved dust respiratory.		
Ventilation	Local Exhaust: As needed to maintain exposure level below PEL/TLV for nuisance dust.	Special: NA
	Mechanical (General): See local exhaust	Other: NA
Protective Gloves: Rubber, vinyl, or latex		
Eye Protection: Goggles or face shield for handling solutions; safety glasses for dusty conditions.		
Other Clothing or Equipment: Safety shower, eye bath and washing facilities should be available.		
Work? Hygienic Practices: Follow standard good manufacturing and industrial hygiene practices.		
Section IX – Statement		
The information in this MSDS has been obtained from a number of reputable sources. However, its accuracy cannot be guaranteed. It is the user's responsibility to evaluate the information and use it in a prudent manner for its particular purpose. Animal Science Products, Inc. assumes no liability for the use of this information.		
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