

1. PRODUCT AND COMPANY IDENTIFICATION

Product Code: MORGAN-150-BULK
Product Name: ORP Buffer 50%
Company Name: Morgan-Gallacher, Inc.
8707 Millergrove Drive
Santa Fe Springs, CA 90670
Phone Number: +1 (562)695-1232
Emergency Contact: CHEMTREC +1 (800)424-9300

2. HAZARDS IDENTIFICATION

Acute Toxicity: Oral, Category 4
Skin Corrosion/Irritation, Category 2
Serious Eye Damage/Eye Irritation, Category 2A



GHS Signal Word: **Warning**

GHS Hazard Phrases: Harmful if swallowed.
Causes skin irritation.
Causes serious eye irritation.

GHS Precautionary Phrases: Read label before use.
Keep out of reach of children.
Do not get in eyes, on skin, or on clothing.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash hands thoroughly after handling.
Wear protective gloves/eye protection.

GHS Response Phrases: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for 15 minutes.
Get immediate medical advice/attention.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Get immediate medical advice/attention.
IF ON SKIN: Wash with plenty of water. If skin irritation occurs, get medical advice/attention.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If experiencing respiratory symptoms: Get immediate medical advice/attention.

GHS Storage and Disposal Phrases: Dispose of contents/container in accordance to local, state and federal regulations.

Inhalation: Harmful if inhaled. May cause respiratory tract irritation.

Skin Contact: May cause a burning sensation of the skin. May be harmful if absorbed through the skin.

Eye Contact: May cause severe eye irritation. May cause tearing.

Ingestion: Harmful if swallowed. May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Hazardous Components (Chemical Name)	Concentration
77-92-9	Citric acid	50.0 %

4. FIRST AID MEASURES

Emergency and First Aid

Procedures:

In Case of Inhalation: Remove from exposure and move to fresh air immediately. Get medical aid immediately.

In Case of Skin Contact: Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

In Case of Eye Contact: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical aid immediately.

In Case of Ingestion: If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person. Call a poison control center.

Note to Physician: Treat symptomatically and supportively. Show this safety data sheet to the doctor in attendance.

5. FIRE FIGHTING MEASURES

Flash Pt: No data.

Explosive Limits: LEL: No data. UEL: No data.

Autoignition Pt: No data.

Suitable Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

Fire Fighting Instructions: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Use water spray to keep fire-exposed containers cool.

Flammable Properties and Hazards: No data available.

Hazardous Combustion Products: No data available.

6. ACCIDENTAL RELEASE MEASURES

Protective Precautions, Protective Equipment and Emergency Procedures: Use proper personal protective equipment as indicated in Section 8.

Environmental Precautions: Do not let this chemical enter the environment. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section.

Steps To Be Taken In Case Material Is Released Or Spilled: Provide ventilation. Do not get water on spilled substances or inside containers. Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container.

7. HANDLING AND STORAGE

Precautions To Be Taken in Handling: Use with adequate ventilation. Do not ingest or inhale. Avoid ingestion and inhalation. Avoid breathing dust, vapor, mist, or gas. Wash thoroughly after handling.

Precautions To Be Taken in Storing: Store in a cool, dry, well-ventilated area away from incompatible substances. Store in a tightly closed container.

Other Precautions: Handle in accordance with good industrial hygiene and safety practice.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
77-92-9	Citric acid	No data.	No data.	No data.
Respiratory Equipment (Specify Type):		Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.		
Eye Protection:		Wear chemical splash goggles.		
Protective Gloves:		Wear appropriate protective gloves to prevent skin exposure. Rubber or neoprene gloves.		
Other Protective Clothing:		Wear appropriate protective clothing to prevent skin exposure.		
Engineering Controls (Ventilation etc.):		Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.		
Work/Hygienic/Maintenance Practices:		Handle in accordance with good industrial hygiene and safety practice.		

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical States:	[] Gas [X] Liquid [] Solid	
Appearance and Odor:	Colorless. to. Pale yellow.	
pH:	1.0 - 3.0	
Melting Point:	No data.	
Boiling Point:	No data.	
Flash Pt:	No data.	
Evaporation Rate:	No data.	
Flammability (solid, gas):	No data available.	
Explosive Limits:	LEL: No data.	UEL: No data.
Vapor Pressure (vs. Air or mm Hg):	No data.	
Vapor Density (vs. Air = 1):	No data.	
Specific Gravity (Water = 1):	1.238 - 1.258	
Solubility in Water:	No data.	
Octanol/Water Partition Coefficient:	No data.	
Autoignition Pt:	No data.	
Decomposition Temperature:	No data.	
Viscosity:	No data.	

10. STABILITY AND REACTIVITY

Stability:	Unstable [] Stable [X]
Conditions To Avoid - Instability:	Incompatible materials, ignition sources.
Incompatibility - Materials To Avoid:	Strong oxidizing agents, Strong bases, chlorine.
Hazardous Decomposition or Byproducts:	carbon monoxide, carbon dioxide.
Possibility of Hazardous Reactions:	Will occur [] Will not occur [X]
Conditions To Avoid - Hazardous Reactions:	No data available.

11. TOXICOLOGICAL INFORMATION

Toxicological Information: Epidemiology: No data available.
 Teratogenicity: No data available.
 Reproductive Effects: No data available.
 Mutagenicity: No data available.
 Neurotoxicity: No data available.

CAS# 77-92-9: Citric acid: Acute toxicity, LD50, Oral, Rat, 3.000 GM/KG.
 Acute toxicity, LD50, Oral, Mouse, 5040. MG/KG.
 Acute toxicity, LDLO, Oral, Species: Rabbit, 7.000 GM/KG.

Carcinogenicity/Other Information: OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Carcinogenicity:	NTP? No	IARC Monographs? No	OSHA Regulated? No			
CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA	
77-92-9	Citric acid	n.a.	n.a.	n.a.	n.a.	

12. ECOLOGICAL INFORMATION

General Ecological Information: Environmental: No information available.
 Physical: No information available.

CAS# 77-92-9: Citric acid: Not reported., Rainbow Trout (*Oncorhynchus mykiss*), 10900. - 17900. UG/G, 1 - 5 W, Feeding Behavior.
 Effective concentration to 100% of test organisms., Water Flea (*Daphnia magna*), 2083. MG/L, 24 H, Behavior.
 Effective concentration to 0 % of test organisms, Green Algae (*Scenedesmus quadricauda*), 640000. UG/L, Population.
 Not reported., Diatom (*Chaetoceros gracilis*), 1000. - 300000. UG/L, 7 D, Population.

Persistence and Degradability: No data available.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

14. TRANSPORT INFORMATION

LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: Not Regulated.

DOT Hazard Class:

UN/NA Number:

15. REGULATORY INFORMATION

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
77-92-9	Citric acid	No	No	No

This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:

<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Explosive	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Acute toxicity (any route of exposure)
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flammable (gases, aerosols, liquid, or solid)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Skin Corrosion or Irritation
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Oxidizer (liquid, solid or gas)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Serious eye damage or eye irritation
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Self-reactive	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Respiratory or Skin Sensitization
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Pyrophoric (liquid or solid)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Germ cell mutagenicity
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Pyrophoric gas	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Carcinogenicity
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Self-heating	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Reproductive toxicity
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Organic peroxide	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Specific target organ toxicity (single or repeated exposure)
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Corrosive to metal	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Aspiration Hazard
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Gas under pressure (compressed gas)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Simple Asphyxiant
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	In contact with water emits flammable gas	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	(Health) Hazard Not Otherwise Classified (HNOC)
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Combustible Dust		
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	(Physical) Hazard Not Otherwise Classified (HNOC)		

CAS # Hazardous Components (Chemical Name)

77-92-9 Citric acid

Other US EPA or State Lists

CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No; CA TAC, Title 8: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NJ EHS: No; NY Part 597: No; PA HSL: No

16. OTHER INFORMATION

Revision Date: 07/10/2019

Additional Information About No data available.

This Product:

Company Policy or

Disclaimer:

While Morgan-Gallacher believes the statements set forth herein are accurate as of the date hereof, Morgan-Gallacher makes no warranty with respect thereto and expressly disclaims all liability for reliance thereon. Such data is offered solely for your consideration, investigation, and verification.