

Section 1: Identification

Product form : Liquid
Trade name : CMZ, A Premier Poultry Product
Product I.D. : Product # 1500, UPC:802209015041
Use of substance/mixture : Additive, A water acidifier, Supplemental source of Copper, Manganese and Zinc. Not for human consumption.

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Emergency number : CHEMTREC: 1-800-424-9300 Customer # 25017

Section 2: Hazard(s) Identification

GHS Classifications

Health hazards : Acute toxicity, dermal Category 4
Acute toxicity, inhalation Category 4
Skin Corrosion/Irritation Category 1B
Serious Eye Damage/Eye Irritation Category 1
Environmental hazards : Hazardous to the aquatic environment, acute hazard Category 3
Hazardous to the aquatic environment, long-term hazard Category 3
Physical : Not Classified

Hazard pictograms (GHS-US)



Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H312 – Harmful in contact with skin.
H314 – Causes severe skin burns and eye damage.
H318 – Causes serious eye damage.
H332 – Harmful if inhaled.
H402 – Harmful to aquatic life.
H412 – Harmful to aquatic life with long lasting effects.

Precautionary statements (GHS-US) : P233 – Keep container tightly closed.
P260 – Do not breathe mist or vapor.
P264 – Wash hands thoroughly after handling.
P270 – Do not eat, drink or smoke when using this product.
P271 – Use only outdoors or in a well-ventilated area.
P273 – Avoid release to the environment.
P280 – Wear protective gloves/protective clothing/eye protection/face protection.

Response : P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER / Doctor if you feel unwell.
P303+P361+P353 – IF ON SKIN: (or hair) Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 – Immediately call a poison center or doctor/physician.
P391 – Collect Spillage.

Storage : P405 – Store locked up.

Disposal : P501 – Dispose of contents and container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Section 3: Composition/Information on Ingredients

Name	Product Identifier	%	Classification (GHS-US)
Acetic Acid	(CAS) 64-19-7	>1 - <50	Flammable liquids, Cat 3, Skin corrosion/Irritation Cat 1B, Serious eye damage Cat. 1.
Citric Acid	(CAS) 77-92-9	>1 - <50	Eye Irritant Cat. 2A.
Tannic Acid	(CAS) 1401-55-4	<1	None
Lactic Acid	(CAS) 50-21-5	<1	Skin Corrosion/Irritation Cat. 2, Serious Eye Damage/Eye Irritation Cat. 1
Water	(CAS) 7732-18-5	>1 - <50	None
Zinc Soluble	N/A	<1	None
Manganese Soluble	N/A	<1	Eye Irritant Cat. 2A, Skin Irritant Cat. 3.
Copper Soluble	N/A	<1	Acute Toxicity, oral Cat 4, Skin Corrosion/Irritation Cat 2, Serious Eye Damage/ Irritation Cat. 2.

Section 4: First-Aid Measures

First-aid measures general	: Victims of chemical exposure must be taken for medical attention if any adverse effect occurs. Take a copy of label and SDS to physician or health professional with victim.
First-aid measures after inhalation	: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Contact a physician.
First-aid measures after skin contact	: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician or poison control center immediately. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.
First-aid measures after eye contact	: Immediately, flush with large amounts of water for at least 15 minutes while holding eyelids apart. If easy to do, remove contact lenses if present. Call a physician immediately. Get medical attention if symptoms persist.
First-aid measures after ingestion	: Never give anything by mouth to an unconscious person. Do not induce vomiting. If conscious, have victim rinse mouth with water. Call a physician or poison control immediately.
Most Important symptoms or effects, and any symptoms that are acute or delayed:	May irritate and cause redness and pain.
Recommendations for immediate medical care and special treatment needed, when necessary:	Treat symptomatically.

Section 5: Fire-Fighting Measures

General fire hazards	: No unusual fire or explosion hazards noted.
Suitable extinguishing equipment	: Water spray, CO ₂ , Dry chemicals or alcohol resistant foam.
Unsuitable extinguishing media	: Do not use water jet as an extinguisher, as this will spread the fire.
Specific Hazards	: During fire, gases hazardous to health may be formed.
Special Fire Fighting Procedures	: Move containers from fire area if you can do so without risk.
Special protective equipment for fire-fighters	: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Section 6: Accidental Release Measures

Protective equipment	: Wear appropriate personal protective equipment.
Environmental Precautions	: Avoid release to the environment.
Emergency procedures	: Ventilate area, Eliminate sources of ignition.
Methods for cleaning up	: Absorb spill with inert material. Keep in suitable closed containers for disposal. Prevent runoff from entering drains, sewers, or streams.

Section 7: Handling and Storage

Precautions for safe handling	: Avoid breathing mist or vapor. Do not get in eyes, on skin or clothing. Do not taste or swallow. Use only with adequate ventilation.
Hygiene measures	: Wash exposed skin thoroughly after handling.
Storage conditions	: Keep container closed when not in use, in a well ventilated place.
Incompatible products	: See section 10.

Section 8: Exposure Controls/Personal Protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
ACETIC ACID (CAS 64-19-7)	PEL	25 mg/m ³ 10 ppm

US. ACGIH Threshold Limit Values

STEL	15 ppm
TWA	10 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

STEL	37 mg/m ³
TWA	15 ppm 25 mg/m ³ 10 ppm

Biological limit values
Appropriate engineering controls

No biological exposure limits noted for the ingredient(s).
Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles) and a face shield.
Skin protection:
Hand protection Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.
Other Wear appropriate chemical resistant clothing.
Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Section 9: Physical and Chemical Properties

Acetic Acid

Physical state : Liquid
Color : Clear, Blue Green.
Odor : Sharp Vinegar Odor.
Odor threshold : No data available
pH : No data available
Relative evaporation rate (butyl acetate=1) : No data available
Melting point/Freezing point : 32 °F (0 °C)
Initial boiling point : 230.04 °F (110.02 °C) estimated range
Flash point : 200.0 °F (93.3 °C)
Auto-ignition temperature : 798.8 °F (426 °C) estimated
Decomposition temperature : No data available
Flammability (solid, gas) : No data available
Vapor pressure (mmHg 20°C) : 14 mmHg
Relative vapor density at 20 °C (Air = 1) : 2.1
Relative density : No data available
Specific gravity / density : Range 1.01 to 1.08
Solubility : 100%
Log Pow : No data available
Log Kow : No data available
Viscosity, kinematic : No data available

Section 10: Stability and Reactivity

Reactivity : None known
Chemical stability : Stable under normal conditions of use and storage.
Possibility of hazardous reactions : No hazardous polymerization.
Conditions to avoid : Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials : Strong oxidizing agents.
Hazardous decomposition products : No hazardous decomposition products are known.

Section 11: Toxicological Information

Carcinogenicity: This product does not contain any carcinogens or potential carcinogens as listed by OSHA, ACGIH, IARC or NTP.

Information on likely routes of exposure:

Inhalation Harmful if inhaled.
Skin contact Causes severe skin burns. Harmful if contact with skin.
Eye contact Causes serious eye damage.
Ingestion Causes digestive tract burns.

Symptoms related to the physical, chemical and toxicological characteristics:

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Citric Acid:

Acute toxicity
LD50/p.o./rat 11,700 mg/kg

LD50/i.p./rat 885 mg/kg
LD50/p.o./mouse 5,040 mg/kg
LD50/l.p./mouse 961 mg/kg
Local effects Irritating to eyes and skin
Chronic toxicity None

Human experience Health injuries are not known or expected under normal use.

Tannic Acid:

Routes of Entry: Inhalation. Ingestion.

Toxicity to Animals: Acute oral toxicity (LD50): 2260 mg/kg [Rat].

Chronic Effects on Humans: CARCINOGENIC EFFECTS: 3 (Not classifiable for human.) by IARC. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female [POSSIBLE]. May cause damage to the following organs: kidneys, liver.

Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: May affect genetic material (mutagenic). May cause adverse reproductive effects. May cause cancer based on animal test data.

Special Remarks on other Toxic Effects on Humans: Acute Potential Health Effects: Skin: May cause skin irritation. It may be absorbed through broken, abraded, or burned skin. Eyes: Causes eye irritation. Inhalation: Dust may cause respiratory tract irritation. Ingestion: May cause gastrointestinal tract irritation (gastritis) with abdominal pain, nausea, vomiting, diarrhea, constipation, and ulceration or bleeding from the stomach. May affect liver (hepatitis, jaundice, hepatic necrosis), behavior (somnia, ataxia, convulsions), urinary tract (kidney damage, nephritis, renal failure, acute tubular necrosis), respiration (dyspnea, respiratory depression, chronic pulmonary edema), metabolism, blood. Chronic Potential Health Effects: Ingestion: Prolonged or repeated ingestion cause symptoms similar to that of acute ingestion.

Lactic acid:

Acute Toxicity	No acute toxicity information is available for this product
LD50 Oral	3730 mg/kg (Rat)
LD50 Dermal	>2000 mg/kg (Rabbit)
LC50 Inhalation	Not Listed
Toxicologically Synergistic	No information available
Delayed and immediate effects as well as chronic effects from short and long-term exposure	
Irritation	Causes burns by all exposure routes
Sensitization	No information available
Carcinogenicity	Not listed with: IARC, NTP, ACGIH, OSHA, Mexico
Mutagenic Effects	No information available
Reproductive Effects	No information available.
Developmental Effects	No information available.
Teratogenicity	No information available.
STOT - single exposure	None known
STOT - repeated exposure	None known
Aspiration hazard	No information available
Symptoms / effects, both acute and Delayed	No information available
Endocrine Disruptor Information	No information available
Other Adverse Effects	The toxicological properties have not been fully investigated
Zinc, Manganese, Copper	No information available

Section 12: Ecological Information

Acetic Acid:

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish	LC-50 (Fathead Minnow, 96 h): 300.82 mg/l
Aquatic Invertebrates	EC-50 (daphnid, 48 h): > 300.82 mg/l

Chronic hazards to the aquatic environment:

Fish	No data available.
Aquatic Invertebrates	No data available.
Toxicity to Aquatic Plants	EC-50 (Alga, 72 h): 300.82 mg/l

Persistence and Degradability

Biodegradation	96 % (20 d) Readily biodegradable
BOD/COD Ratio	No data available.
Bioaccumulative Potential	
Bioconcentration Factor (BCF)	Bioconcentration Factor (BCF): 3.16
Partition Coefficient n-octanol / water (log Kow)	Log Kow: -0.17 20 °C

Mobility in Soil:

	Known or predicted distribution to environmental compartments
	Log Koc: 0.062 (QSAR model)

Other Adverse Effects:

	No data available.
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Citric Acid:

Mobility	Completely soluble
Persistence and degradability	
Chemical oxygen demand	(COD) = 728 mg O ₂ /g
Biological oxygen demand/5 days	(BOD) = 528 mg O ₂ /g
Readily biodegradable	98% after 2 days
Bioaccumulation	None
Ecotoxicity effects	Toxicity to fish (LC50/96h/goldfish) = 440-706 mg/l Toxicity to bacteria (EC0) = >10,000 mg/l

Tannic Acid:

Toxicity:

Fish	LC-50 37 mg/l 96 h
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Tannic Acid/Lactic Acid:

Persistence and Degradability
Bioaccumulative Potential
Mobility in Soil:

Soluble in water Persistence is unlikely based on information available.
No information available
Will likely be mobile in the environment due to its water solubility.

Zinc/Copper/Magnesium:

Copper:
Expected to be readily biodegradable. Not bioaccumulative.

LD-50 96 h 58 mg/l Tilapia (copper sulphate)

Section 13: Disposal Considerations

Disposal Methods : Disposal should be in accordance with all local and national regulations.
Can generally be disposed of in an approved disposal facility, in accordance
With applicable federal, state, and local regulations. Landfill or neutralize.
Material is biodegradable in waste treatment facility.

Ecology – waste materials : Avoid release to the environment.

Section 14: Transport Information

FOR WITH MORE THAN 10% BUT NOT MORE THAN 50% ACETIC ACID

Proper Shipping Name: Acetic Acid Solution, UN2790
Hazard Class: Class 8, CORROSIVE
Packing Group: PGII
D.O.T. Label Required: CORROSIVE
Reportable Quantity of Product: 5000 Pounds

Section 15: Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture.:

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. WHMIS (Canada) Status: controlled

WHMIS (Canada) Hazard Classification: B/2, E

SARA 311-312 Hazard Classification(s):
immediate (acute) health hazard fire hazard

US EPCRA (SARA Title III) Section 313 - Toxic Chemical List
NONE

OSHA: hazardous

TSCA (US Toxic Substances Control Act): All components of this product are listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act): All components of this product are listed on the DSL. Any impurities present in this product are exempt from listing.

AICS / NICNAS (Australian Inventory of Chemical Substances and National Industrial Chemicals Notification and Assessment Scheme): All components of this product are listed on AICS or otherwise comply with NICNAS.

MITI (Japanese Handbook of Existing and New Chemical Substances): All components of this product are listed in the Handbook or have been approved in Japan by new substance notification.

ECL (Korean Toxic Substances Control Act): All components of this product are listed on the Korean inventory or otherwise comply with the Korean Toxic Substances Control Act.

Philippines Inventory (PICCS) : All components of this product are listed on the Philippine inventory or otherwise comply with PICCS.

Section 16: Other Information

HMIS Hazard Ratings: Health – 3, Flammability – 2, Chemical Reactivity – 0

Disclaimer : Although the information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date thereof, YS, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will YS, Inc. be responsible for damages of any nature whatsoever resulting from the use if or reliance upon information. No representations or warranties, either express or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers.