

# **1 – PRODUCT AND COMPANY IDENTIFICATION**

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## 2 – HAZARDS IDENTIFICATION

#### **GHS HAZARD CLASSIFICATION:**

Physical Hazards
Flammable Liquids: ......No Hazard Statement established for this Product
Corrosive Liquids: .....No Hazard Statement established for this Product
Health Hazards
Acute Toxicity (Oral): .....Category 4 - Harmful if swallowed, in contact with skin, inhaled
Skin Corrosion/Irritation: ....Catagory 2 - Causes skin irritation
Eye Damage/Irritation: ....Catagory 2A - Causes eye irritation
Aspiration Hazard: .....Catagory 2 - May be harmful if swallowed and enters airways.
Carcinogen: .....No Hazard Statement established for this Product

#### **EMERGENCY OVERVIEW:**

**Pictograms:** 



Signal Word (GHS-US): .....WARNING!



## Hazard Statements:

## Physical Hazards (GHS-US):

No Hazard Statement established for this Product

## Health Hazards (GHS-US):

H302 H312 H332: Harmful if swallowed, in contact with skin or if inhaled. H319: Causes serious eye irritation.

## **Environmental Hazards (GHS-US):**

No Hazard Statement established for this Product.

## Precautionary Statements (GHS-US):

P101+102+103: If medical advice is needed, have product container or label at hand. Keep out of the reach of children. Read label before use.

P261+P264+P270+P271+P280: Avoid breathing dust/fume/gas/mist/vapors/spray. Wash hands and clean any skin contact thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

P233+P403+P405: Keep container tightly closed. Store in a well ventilated place. Store locked up.

## **Response Statements (GHS-US):**

P301+P310+P330+P331: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting. P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. P337+313: If eye irritation persists get medical advice/attention. P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P304+312: IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell. P302+352: IF ON SKIN: Wash with soap and water.

P501: Dispose of contents/container: Treatment, storage, transportation and disposal must be in accordance with Federal, State/Provincial and Local Regulations, and product characteristics at time of disposal.

TOTAL VOC's:....None

3 – COMPOSITION / INFORMATION ON INGREDIENTS		INTS
HAZARDOUS INGREDIENT	PERCENT*	CAS NUMBER
Citric Acid	4	77-92-9
Water	96	7732-18-5

\*Any concentration shown as a range is to protect confidentiality or is due to batch variation.



# 4 – FIRST-AID MEASURES

BREATHING (INHALATION):	Remove from exposure area to fresh air immediately. If breathing has stopped, perform artificial resuscitation. Keep person warm and at rest. Treat symptomatically and supportively. Seek medical attention immediately. Qualified medical personnel should consider administering oxygen.
	Give large amounts of fresh water or milk immediately. Do not give anything by mouth if person is unconscious or otherwise unable to swallow. If vomiting occurs, keep head below hips to prevent aspiration. Treat symptomatically and supportively. Seek medical attention immediately.
EYES:	Flush eye with copious quantities of water. If persistent
	irritation occurs, obtain medical attention.
SKIN (DERMAL):	Remove contaminated clothing and wash affected skin with
	soap and water. If persistent irritation occurs, obtain medical attention. When using high pressure equipment, injection of product under the skin can occur. If high pressure injuries occur, the casualty should be sent immediately to a hospital. Do not wait for symptoms to develop.
NOTE TO PHYSICIAN:	All treatments should be based on observed signs and
	symptoms of distress in the patient. Consideration should be
	given to the possibility that overexposure to materials other
	than this product may have occurred.

# **5 – FIRE-FIGHTING MEASURES**

	Water based blend - Non Flammable None - Water based material
EXTINGUISHING MEDIA:	Determined by surrounding material. In case of fire, use water fog, dry chemical, CO <sub>2</sub> , or "alcohol" foam. Firefighting should be
	attempted only by those who are adequately trained and equipped with proper protective equipment.
SPECIAL FIRE FIGHTING	
PROCEDURES: UNUSUAL FIRE AND	Spilled product on ground may be slippery.
EXPLOSION HAZARDS:	Containers may explode from internal pressure if confined to
	fire. Cool with water spray.



# **6 – ACCIDENTAL RELEASE MEASURES**

SPILL PROCEDURES:	Wear appropriate personal protective equipment before approaching spill site. For small spills, dilute with water to sewer if allowed by local and state regulations. If unable to wash product with water, absorb with inert material (sand or other approved material) and dispose of in accordance with applicable regulations.
WASTE DISPOSAL:	Treatment, storage, transportation and disposal must be in accordance with Federal, State/Provincial and Local Regulations. Regulations may vary in different locations. Characterization and compliance with applicable laws are the responsibility solely of the generator. Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.
RCRA STATUS:	If discarded in its purchased form, it is not a RCRA hazardous waste. It is the responsibility of the product user to determine at the time of disposal, whether a material containing the product should be classified as a hazardous waste. (40CFR261.20-24).

## 7 – HANDLING and STORAGE

STORAGE:	. Keep in a tightly closed container, stored in a cool, dry, ventilated area below 44°C (110°F). Protect against physical damage. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product. Drum must not be washed out or used for other purposes.
HANDLING:	Avoid contact with eyes, skin and clothing. Do not inhale vapors and fumes. Wash thoroughly after handling. Use only with adequate ventilation. Do not take internally. For industrial use only.



8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

## OCCUPATIONAL EXPOSURE LIMITS

HAZARDOUS INGREDIENT

Citric Acid Water **PEL** None Established None Established TLV-TWA None Established None Established



	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. Please refer to the ACGIH document,
	Industrial Ventilation, A Manual of Recommended Practices,
	most recent edition, for details.
<b>RESPIRATORY PROTECTION:</b>	If engineering controls do not maintain airborne concentrations
	below recommended exposure limits (where applicable) or to
	an acceptable level (in countries where exposure limits have
	not been established), an approved respirator must be worn. In
	the United States of America, if respirators are used, a program
	should be instituted to assure compliance with OSHA Standard
	63 FR 1152, January 8, 1998. Respirator type: Air-purifying
	respirator with an appropriate, government approved (where
	applicable), air-purifying filter, cartridge or canister. Contact
	health and safety professional or manufacturer for specific
	information.
PROTECTIVE CLOTHING:	. Eye/face protection: Wear chemical goggles; face shield (if
	splashing is possible). Skin protection: Chemical resistant,
	impermeable gloves. Gloves should be tested to determine
	suitability for prolonged contact. Use of impervious apron or
	chemical suit and chemical resistant boots are recommended.
ADDITONAL MEASURES:	. Handle in accordance with good industrial hygiene and safety
	practice. Wash thoroughly with soap and water after handling
	and before eating, drinking, or using tobacco. Safety shower
	and eye wash should be available close to work areas.



# 9 – PHYSICAL / CHEMICAL PROPERITES

BOILING POINT:	212°F (100°C)
FREEZING POINT:	28°F (-2.2°C)
FLASHPOINT:	Non-flammable material
UPPER FLAME LIMIT (%):	NA
LOWER FLAME LIMIT (%):	NA
VAPOR PRESSURE:	Similar to Water
VAPOR DENSITY (AIR=1):	>1
SPECIFIC GRAVITY:	1.00 - 1.02
рН:	0 - 3
SOLUBILITY IN WATER:	Complete
VOLATILITY	
INCLUDING WATER:	8.46 pounds per gallon
MOLECULAR WEIGHT:	No data available (G/MOLE)
EVAPORATION RATE:	Similar to Water
PHYSICAL STATE:	Liquid
COLOR:	Clear to pale straw
ODOR:	Bland

## 10 – STABILITY and REACTIVITY

STABILITY:St	table
HAZARDOUS DECOMP.:W	Vill not occur
INCOMPATIBILITY:A	queous solutions of Citric Acid can, if in contact with reactive
rr	netals (iron, zinc, or aluminum), form hydrogen which may
fc	orm explosive mixtures.
HAZARDOUS REACTIONS:	Not expected to be Explosive, Self-Reactive, Self-Heating, or an
0	rganic Peroxide under US GHS Definition(s).

# **11 – TOXICOLOGICAL INFORMATION**

THRESHOLD LIMIT VALUE:	None Established for this Product
OSHA PEL:	None Established for this Product
LISTED CARCINOGEN:	This product IS NOT listed in the National Toxicology Program
	(NTP) Report on Carcinogens (latest edition) or has been found
	to be a potential carcinogen in the International Agency for
	Research on Cancer (IARC) Monographs (latest editions) or
	found to be a potential carcinogen by OSHA.
MEDICAL CONDITION	,
AGGRAVATED:	Existing dermatitis.



## INFORMATION ON ACUTE TOXICOLOGICAL EFFECTS

#### ORAL

**Product:** .....Severe irritant to mucous membranes and may cause perforation of the esophagus and stomach. Abdominal pain, nausea, vomiting, general gastro-intestinal upset can be expected.

#### DERMAL

**Product:** ......Irritant, possibly corrosive if contact is prolonged. Skin contact may aggravate existing dermatitis.

## INHALATION

## Product: .....

SKIN CORROSION / IRRITATION

#### **SERIOUS EYE DAMAGE / IRRITATION**

**Product:** ......Irritant, possibly corrosive to eye tissues. Tearing, redness, pain, impaired vision are symptoms.

#### **RESPIRATORY OR SKIN SENSITIZATION**

**Product:** ......Not expected to be sensitizing based on tests of this product, components, or similar products.

#### MUTAGENCITY

# IN VITRO Product: ......No Data Available IN VIVO Product: .....No Data Available Specified Substance(s) Information as provided by manufacturer Citric Acid No Data Available

## CARCINOGENICITY

**Product:** ......Based on available data the classification criteria are not met. Not classified as hazardous.

#### **REPODUCTIVE TOXICITY**

**Product:** ......Based on available data the classification criteria are not met. Not classified as hazardous.



## SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE

#### SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE

## **ASPIRATION HAZARD**

**Product:** ......Droplets of the product aspirated into the lungs through ingestion or vomiting may cause chemical pneumonia.

## OTHER ADVERSE EFFECTS

## **12 – ECOLOGICAL INFORMATION**

## ACUTE TOXICITY

#### FISH

Product: .....LC50 - Leuciscus idus melanotus - 440 mg/l - 48 hour AQUATIC INVERTEBRATES

**Product:** ......Toxicity to daphnia and other aquatic invertebrates static test - Daphnia magna (Water flea) - 1,535 mg/l - 24 hour

## CHRONIC TOXICITY

FISH

**Product:** .....NOEC/NOEL: >10 - <100 mg/L (based on similar products / components)

## AQUATIC INVERTEBRATES

**Product:** ......NOEC/NOEL: >10 - <100 mg/L (based on similar products / components)

## TOXICITY TO AQUATIC PLANTS

Product: .....No data available



## PERSISTENCE AND DEGRADABILITY

## BIODEGRADATION

**Product:** .....Biodegradability under aerobic static laboratory conditions is high 528 mg  $O_2$  /g, greater than 98% after 2 days.

## **BIOLOGICAL OXYGEN DEMAND**

Product: .....No data available

## CHEMICAL OXYGEN DEMAND

**Product:** ......728 mg O<sub>2</sub> /g

#### **BOD / COD RATIO**

Product: .....No data available

## **BIOACCUMULATIVE POTENTIAL**

Product: .....Potential to bioaccumate is low.

## MOBILITY IN SOIL

Product: .....Expected to partition to water.

## **RESULTS OF PBT AND mPvB ASSESSMENT**

**Product:** ......Not fulfilling PBT (persistent/bioaccumulative/toxic) criteria. Not fulfilling vPvB (very persistent, very bioaccumulative) criteria.

## **OTHER ADVERSE EFFECTS**

**Product:** .....No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential or global warming potential) are expected from this product.

## **13 – DISPOSAL CONSIDERATIONS**

WASTE DISPOSAL:	Treatment, storage, transportation and disposal must be in
	accordance with Federal, State/Provincial and Local
	Regulations. Regulations may vary in different locations.
	Characterization and compliance with applicable laws are the
	responsibility solely of the generator. Whatever cannot be
	saved for recovery or recycling should be managed in an
	appropriate and approved waste disposal facility. Processing,
	use or contamination of this product may change the waste
	management options. State and local disposal regulations may
	differ from federal disposal regulations. Dispose of container
	and unused contents in accordance with federal, state and local requirements.
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	waste. It is the responsibility of the product user to determine
	at the time of disposal, whether a material containing the
	product should be classified as a hazardous waste.

(40CFR261.20-24).



## **14 – TRANSPORTATION INFORMATION**

Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.

UN/NA NUMBER:......None PROPER SHIPPING NAME:.....Non-Regulated HAZARD CLASS:....None PACKAGING GROUP : .....None LETTER:....None ENVIRONMENTAL HAZARD: ....Because of modern treatment methods or method of use of this product, only an insignificant amount of the ingredients reaches the environment. That amount is at such levels as to typically not cause any adverse effects.

REPORTABLE QUANTITY:.....None

## **15 - REGULATIONS**

This Safety Data Sheet conforms to ANSI Z400.5, and to the format requirements and the International Chemical Safety Cards of the Global Harmonizing System. This SDS complies with 29 CFR 1910.1200 (HAZARD COMMUNICATION STANDARD). **IMPORTANT:** Read this SDS before handling & disposing of this product. Pass this information on to employees, customers, & users of this product.

EPA SRA Title III Chemical Listings:

TSCA STATUS:	This product is listed on the TSCA inventory. If this product is a blend, all ingredients in the product are listed on the TSCA Inventory List. Any impurities present in this product are exempt from listing.
SECTION 302:	None
SECTION 304:	None
SECTION 312:	None
SARA SECTION 313:	None
ACUTE:	Yes (Eyes)
CHRONIC:	No
FIRE:	No
PRESSURE:	No
REACTIVE:	No
CLEAN WATER ACT:	None



## IMDG – International Marine Dangerous Goods Code

Class Non Regulated - Possible Shipping Description(s): Non Regulated IATA

Class Non Regulated - Possible Shipping Description(s): Non Regulated

DEA Chemical Trafficking Act: .. No

Homeland Security Regulated .. This product does not contain any reportable DHS chemicals.

California Proposition 65	This product contains the following Proposition 65 chemicals:	
Component	This product does not contain any chemicals known to the State	
of California to cause cancer, birth, or any other reproductive defects.		
Cal Prop 65	. Not Applicable/Not Available	
Cal Prop 65 NSRLNo Significant Risk Level		
Category	. Not Applicable/Not Available	

## US State Right to Know (RTK)

Component	Chemical not Listed
Massachusetts	No
New Jersey	No
Pennsylvania	No
Illinois	No

Rhode Island.....No

\*\*RTK Chemical(s) .....Chemical not Listed

Canada NPRI .....Chemical not Listed

DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act): All ingredients in 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 ingredients in this product are listed on AICS or otherwise complies with NICNAS.

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

ECL (Korean Toxic Substances Control Act): All ingredients in this product are listed on the Korean inventory or otherwise complies with the Korean Toxic Substances Control Act.KE-04134 Philippines Inventory (PICCS): All ingredients in this product are listed on the Philippine Inventory or otherwise complies with PICCS.

Inventory of Existing Chemical Substances in China: All ingredients in this product are listed on the Inventory of Existing Chemical Substances in China (IECSC).



## **16 – OTHER INFORMATION**

HMIS*		
HEALTH	1	
FLAMMABILITY	0	
REACTIVITY	0	
PERSONAL PROTECTION	ON C	

**\*HMIS®HAZARD INDEX: 0=Minimal Hazard, 1=Slight Hazard, 2=Moderate Hazard, 3=Serious Hazard, 4=Severe Hazard.** HMIS® rating involves data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this SDS and product label must be considered.

ND = No Data, NA = Not Applicable/Not Available,  $\leq$  = Less than or equal to,  $\geq$  = Greater than or equal to

**REVISION STATEMENT:** Changes have been made throughout this Safety Data Sheet (SDS). Please read the entire document. Prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200) and The Globally Harmonized System of Classification and Labeling of Chemicals (GHS) by the Company Health and Risk Assessment Unit.

## 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 hereof, the Company makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving this Safety Data Sheet (SDS) will make their own determination as to its suitability for their intended purposes prior to use. Since the product is within the exclusive control of the user, it is the user's obligation to determine the conditions of safe use of this product. Such conditions should comply with all Federal and State Regulations concerning the Product. It must be recognized that the physical and chemical properties of any product may not be fully understood and that new, possibly hazardous products may arise from reactions between chemicals. The information given in this data sheet is based on our present knowledge and shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. 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.

\*\*\*This is the last page of this SDS\*\*\*