



# Safety Data Sheet (CITRIC ACID 50% LIQUID)

## 1 – PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:**..... CITRIC ACID 50% LIQUID

**CHEMICAL NAME/**

**CLASS/SYNONYMS:** None

**PRODUCT NUMBER:** ..... CITRIC ACID 50% LIQUID

**UN/NA NUMBER:** ..... None

**CHEMICAL FAMILY:** ..... Compounds, Cleaning Liquid

**CAS NUMBER:** ..... Not applicable for mixtures.

**FORMULA:** ..... Proprietary

**COMPANY:**..... **JMN Specialties, Inc.**

1100 Victory Drive – Westwego, Louisiana USA 70094

Phone (504) 341-3749, Fax (504) 341-5868

[www.jmnspecialties.com](http://www.jmnspecialties.com)

**EMERGENCY PHONE:** ..... CALL CHEMTEL: Toll Free US & Canada: (800) 255-3924, Outside  
USA +01-813-248-0585. Contract #: MIS0002833.

**DATE PREPARED:** ..... September 24, 2015

## 2 – HAZARDS IDENTIFICATION

### GHS HAZARD CLASSIFICATION:

#### Physical Hazards

**Flammable Liquids:**..... . No hazard statement

#### Health Hazards

**Acute Toxicity (Oral):** ..... . Category 4 - Harmful if swallowed, in contact with skin, inhaled

**Skin Corrosion/Irritation:** ..... . Category 2 - Causes skin irritation

**Serious Eye Damage/Irritation:** Category 2A - Causes eye irritation

**Aspiration Hazard:**..... . Category 2 - May be harmful if swallowed and enters airways.

### WARNING LABEL ITEMS INCLUDING PRECAUTIONARY STATEMENTS:

**Pictograms:**



**SIGNAL WORD:**..... WARNING!

### GHS HAZARD AND PRECAUTIONARY STATEMENTS:

H303 H313 H333: May be harmful if swallowed, in contact with skin or if inhaled

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.

P202+270+280+281: Do not handle until all safety precautions have been read and understood. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Use personal protective equipment as required.



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P501: Dispose of contents/container: 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.

**TOTAL VOC's:** None

### 3 – COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENT	PERCENT	CAS NUMBER
Citric Acid	49 - 51	77-92-9
Water	49 -51	7732-18-5

### 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.

**SWALLOWING (INGESTION):** 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

**GENERAL FIRE HAZARDS:** .... Water based blend - Non Flammable

**AUTOIGNITION TEMP:** 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.

**SPECIAL FIRE FIGHTING PROCEDURES:**

Spilled product on ground may be slippery.



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## UNUSUAL FIRE AND

**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





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**EXPOSURE CONTROLS:** 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. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

**RESPIRATORY PROTECTION:** 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.

**ADDITIONAL 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 PROPERTIES

**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:** ..... 1.23 - 1.26  
**pH:** ..... 0 - 3  
**SOLUBILITY IN WATER:**..... Complete  
**VOLATILITY**  
**INCLUDING WATER:** 10.42 pounds per gallon  
**MOLECULAR WEIGHT:** ..... NA  
**EVAPORATION RATE:**..... Similar to Water  
**PHYSICAL STATE:** ..... Liquid  
**COLOR:** ..... Clear to Light Amber  
**ODOR:**..... Bland, Acidic



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## 10 – STABILITY and REACTIVITY

**STABILITY:** ..... Stable  
**HAZARDOUS DECOMP.:** ..... Will not occur  
**INCOMPATIBILITY:** ..... Aqueous solutions of Citric Acid can, if in contact with reactive metals (iron, zinc, or aluminum), form hydrogen which may form explosive mixtures.  
**HAZARDOUS REACTIONS:** Not expected to be Explosive, Self-Reactive, Self-Heating, or an Organic Peroxide under US GHS Definition(s).

## 11 – TOXICOLOGICAL INFORMATION

**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. **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. **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.

**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:**..... Respiratory tract irritant, may cause burns on acute contact.

#### REPEATED DOSE TOXICITY

**Product:**.....

#### SKIN CORROSION / IRRITATION

**Product:**..... Repeated and prolonged exposure to concentrated material may cause dermatitis.

#### 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.



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## MUTAGENICITY

### 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.

## REPRODUCTIVE TOXICITY

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

## SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE

**Product:** **GENERAL:** This product contains acids that are corrosive and can cause severe and painful burns on contact with any part of the body or if taken internally. The mucous membranes of the eyes and the upper respiratory tract are especially susceptible to these irritating effects. **INHALATION:** Inhalation of excessive concentrations of mist or vapor can cause severe irritation of the upper respiratory tract, resulting in coughing, burning of the throat, and a choking sensation. If inhaled deeply, edema of the lungs may occur. **EYES:** Contact with this product, either in gas or in solution, can cause severe irritation and painful burns of the eyes and eyelids. The acid **MUST** be removed quickly with thorough irrigation with water or there may be prolonged or permanent visual impairment or total loss of sight. **SKIN:** Concentrated solutions are destructive to clothing and on contact with skin, can cause severe burns unless promptly washed off. **INGESTION:** This product, when swallowed, can cause severe burns of the mucous membranes of the mouth, esophagus and stomach.

## SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE

Product:..... 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. This product may aggravate existing eye, skin, and respiratory conditions.

## ASPIRATION HAZARD

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

## OTHER ADVERSE EFFECTS

Product:..... Negligible ecotoxicity

# 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 > 100 mg/l. (based on similar products / components)



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## AQUATIC INVERTEBRATES

**Product:**..... NOEC/NOEL > 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<sub>2</sub> /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 bioaccumulate 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, endocrine disruption, 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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### 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





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### 16 – OTHER INFORMATION

#### HMIS\*

HEALTH	2
FLAMMABILITY	0
REACTIVITY	0
PERSONAL PROTECTION	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, ≤ = Less than or equal to, ≥ = 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\*\*\***