



Safety Data Sheet

In accordance with CFR 1910.1200 (OSHA HCS)

SDS No. 327

Date of review: September 27, 2018

1 Identification of substance and company

Product name: **Citric acid, anhydrous**
Product code: 90422
Relevant use and restrictions on use: Research and product development
Manufacturer/Supplier: Noah Technologies Corporation
1 Noah Park
San Antonio, Texas 78249-3419
Phone: 210-691-2000
Fax: 210-691-2600
Web site: www.noahtech.com
Emergency information: CHEMTREC
800-424-9300

2 Hazards identification

Emergency Overview:

Pictogram(s):



Signal word(s):

Warning

Hazard statements:

H319 Causes serious eye irritation

Precautionary statements:

P264 Wash skin thoroughly after handling
P280 Wear protective gloves/eye protection/face protection
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

GHS Classification:

Eye irritation - 2A

Hazards not otherwise classified:

None

HMIS ratings (scale 0-4):

Health hazard:	1
Flammability:	0
Physical hazard:	0

3 Composition/Information on ingredients

Chemical name: Citric acid , anhydrous
Designation:
CAS number: 77-92-9
EC number: 201-069-1
Formula: C₆H₈O₇
Synonyms: None

4 First aid measures

After inhalation: Move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
After skin contact: Wash off with soap and plenty of water. Consult a physician.
After eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
After ingestion: Never give anything by mouth to an unconscious person. Rinse mouth out with water. Consult a physician.
Information for doctor: Show this safety data sheet to the doctor in attendance
Symptoms/effects; acute and delayed: May cause skin, eye or respiratory irritation
Ingestion may cause vomiting, diarrhea, damage to tooth enamel
Immediate medical attention and special treatment needed: No data available

5 Fire-fighting measures

Suitable and unsuitable extinguishing agents:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide
Special hazards caused by the material, its products of combustion or resulting gases:	Carbon monoxide and dioxide
Special fire fighting procedures:	Wear self-contained breathing apparatus (SCBA) and fully protective fire fighting equipment/clothing
Unusual fire and explosion hazard:	No data available

6 Accidental release measures

Person-related safety precautions:	Use personal protective equipment. Avoid dust formation. Avoid breathing dust.
Measures for environmental protection:	Do not let product enter drains
Measures for cleaning/collecting:	Sweep or scoop up and remove. Place in a suitable container for proper disposal.
Additional information:	See Section 7 for information on safe handling See Section 8 for information on personal protective equipment See Section 13 for information on disposal See Section 15 for regulatory information

7 Handling and storage

Information for safe handling:	Avoid contact with skin and eyes. Avoid formation of dust. Use with adequate ventilation.
Information about protection against explosions and fires:	Normal measures for preventive fire protection.
Storage requirements to be met by storerooms and containers:	Keep container tightly closed in a dry and well-ventilated place
Incompatibility (avoid contact with):	Strong bases and oxidizers, metal nitrates
Further information about storage conditions:	No further information available

8 Exposure controls/personal protection

Ventilation requirements:	Use with adequate ventilation
Components with exposure limits that require monitoring:	Particulates not otherwise classified: OSHA PEL: 15 mg/m ³ (total dust); 5 mg/m ³ (respirable)
Additional information:	No further information available
General protective and hygienic measures:	The usual precautionary measures for handling chemicals should be adhered to Keep away from foodstuffs, beverages and food Instantly remove any soiled and impregnated garments Wash hands during breaks and at the end of the work Avoid contact with the eyes and skin
Personal protective equipment:	
Respiratory protection: (Use only NIOSH or CEN approved Equipment)	Filter-dust, fume, mist respirator
Hand protection:	Impervious gloves
Eye protection:	Safety glasses with side-shields
Skin protection:	Protective work clothing
Additional protective equipment:	Sufficient to prevent contact. Emergency eyewash and safety shower.
Precautionary labeling:	Wash thoroughly after handling Do not get in eyes, on skin or on clothing Do not breathe dust, vapor, mist, or gas

9 Physical and chemical properties

Physical state:	Powder
Color:	White
Odor:	Odorless
Odor threshold:	No data available
Molecular Weight (Calculated):	192.13
pH	1.8 @ 50 g/L @25 C
Melting point/freezing point/range:	153-159 C
Boiling point/range:	Decomposes
Sublimation temperature/start:	No data available
Decomposition temperature:	No data available
Flammability (solid, gas):	No data available
Flash point:	No data available
Autoignition temperature:	No data available
Danger of explosion:	No
Flammable limits:	
Lower:	Lower explosion limit: 8% (V)
Upper:	No data available
Evaporation Rate:	No data available
Vapor pressure (mm Hg):	No data available
Vapor density:	No data available

Specific gravity: 1.665
Bulk density: No data available
Solubility in/Miscibility with water: 383 g/L @ 25 C
Partition coefficient n-octanol/water: log Pow: -1.639 @ 20 C
Viscosity: No data available

10 Stability and reactivity

Reactivity: No data available
Chemical stability: Stable under recommended storage conditions
Possibility of hazardous reactions: No data available
Conditions to be avoided: Water/moisture (hygroscopic)
See section 7 for information on proper handling and storage
Materials to be avoided: Strong bases and oxidizers, metal nitrates
Dangerous reactions: No data available
Hazardous decomposition products: Carbon monoxide and dioxide
(thermal and other)

11 Toxicological information

LD/LC50 values that are relevant for classification: oral-rat LD₅₀: 5,400 mg/kg
Irritation or corrosion of skin: skin-rabbit 500 mg/24H:MOD
Irritation or corrosion of eyes: eye-rabbit 750 ug/24H:SEV
Primary irritant or corrosive effect:
on the skin: May cause irritation
on the eye: May cause irritation
Sensitization: No data available
Potential health effects:
Inhalation: May cause irritation to the upper respiratory tract and mucous membranes
Ingestion: No data available
Skin: May cause irritation
Eyes: May cause irritation
Signs and symptoms of exposure: May cause a burning sensation, cough, wheezing, laryngitis, shortness of breath, headache, nausea, vomiting, diarrhea, damage to tooth enamel, dermatitis
To the best of our knowledge the acute and chronic toxicity of this substance is not fully known
Carcinogenicity: No data available
Additional information: No additional information available

12 Ecotoxicological information

Toxicity:
Toxicity to fish: Leuciscus idus LC₅₀: 440 mg/L:48H
Toxicity to daphnia and other aquatic invertebrates: Daphnia magna EC₅₀: 1535 mg/L:24H
Toxicity to algae: No data available
Persistence and degradability:
Biodegradability: No data available
Bioaccumulative potential:
Bioaccumulation: No data available
Mobility in soil: No data available
Other adverse effects: No additional information available

13 Disposal considerations

Recommendation: Consult state, local or national regulation for proper disposal
Allow professional disposal company to handle waste
Must be specially treated under adherence to official regulations
Unclean packagings recommendation: Disposal must be made according to official regulations

14 Transport information

Land transport DOT

Proper shipping name: Chemicals Non-Hazardous
Technical name: Citric acid, anhydrous

Air transport ICAO-TI and IATA-DGR:

Proper shipping name: Chemicals Non-Hazardous
Technical name: Citric acid, anhydrous

UPS Ground / FedEx Ground

Proper shipping name: Chemicals Non-Hazardous
Technical name: Citric acid, anhydrous

UPS Air

Proper shipping name: Chemicals Non-Hazardous
Technical name: Citric acid, anhydrous

15 Regulatory information

SARA Section 302 Extremely Hazardous components and corresponding TPQs: Not subject
SARA Section 311 / 312 hazards: Acute Health Hazard
SARA Section 313 components: Not subject
California Proposition 65 components: Not subject
TSCA: Material is listed on TSCA Inventory

16 Other information

The above information is accurate to the best of our knowledge. However, since data, safety standards and government regulation are subject to change and the conditions of handling and use, or misuse are beyond our control. NOAH MAKES NO WARRANTY, EITHER EXPRESSED OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND DISCLAIMS ALL LIABILITY FOR RELIANCE THEREON. User should satisfy himself that he has all current data relevant to his particular use.