

Version 1.1

Revision Date: 10/15/2019

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name :	CITRIC ACID ANHYDROUS
Recommended use of the chemical	and restrictions on use
Recommended use : Manufacturer or supplier's details	Industrial chemical
Company : Address	Univar Solutions USA, Inc. 3075 Highland Pkwy Suite 200 Downers Grove, IL 60515 United States of America (USA)
Emergency telephone number: Transport North America: CHEM CHEMTREC INTERNATIONAL 1 Additional Information:	TREC (1-800-424-9300)

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification Eye irritation	: Category 2A
GHS label elements Hazard pictograms	
Signal word	: Warning
Hazard statements	: H319 Causes serious eye irritation. May form combustible dust concentrations in air.
Precautionary statements	 Prevention: P264 Wash skin thoroughly after handling. P280 Wear eye protection/ face protection. Response: P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 If eye irritation persists: Get medical advice/ atten- tion.
Other hazards None known.	

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance



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CAS-No.	Chemical name	Weight percent
77-92-9	Citric acid	90 - 100
Any Concentration s	shown as a range is due to batch variation.	
Molecular formula Synonyms	: C6H8O7 : 2-Hydroxy-1,2,3-propanetricarboxyli ric Acid Anhydrous,	c acid, monohydrate; Cit-
TION 4. FIRST AID	MEASURES	
General advice	: Move out of dangerous area.	

	Show this safety data sheet to the doctor in attendance. Do not leave the victim unattended.
lf inhaled	: If unconscious, place in recovery position and seek medical advice.
In case of skin contact	If symptoms persist, call a physician. : If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.
In case of eye contact	 Immediately flush eye(s) with plenty of water. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing.
If swallowed	 If eye irritation persists, consult a specialist. Keep respiratory tract clear. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media Unsuitable extinguishing media Hazardous combustion prod- ucts	 Use an extinguishing media appropriate for surrounding fire. High volume water jet No hazardous combustion products are known 	
Specific extinguishing meth- ods Further information Special protective equipment for firefighters	 Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Standard procedure for chemical fires. Wear self-contained breathing apparatus for firefighting if necessary. 	

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec- tive equipment and emer- gency procedures	: Use personal protective equipment. Avoid dust formation. Avoid breathing dust.	
Environmental precautions	: Prevent further leakage or spillage if safe to do so.	



Version 1.1 Revision Date: 10/15/2019 Methods and materials for containment and cleaning up : Neutralize with chalk, alkali solution or ammonia. Keep in suitable, closed containers for disposal. SECTION 7. HANDLING AND STORAGE Advice on protection against : Avoid dust formation. Provide appropriate exhaust ventilation

fire and explosion	at places where dust is formed.
Advice on safe handling	 Avoid formation of respirable particles. Do not breathe vapours/dust. Avoid contact with skin and eyes. For personal protection see section 8.
	Smoking, eating and drinking should be prohibited in the ap- plication area. Dispose of rinse water in accordance with local and national regulations.
Conditions for safe storage	: Keep container tightly closed in a dry and well-ventilated place.
Materials to avoid	Electrical installations / working materials must comply with the technological safety standards. : Do not store near acids.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection	:	No personal respiratory protective equipment normally re- quired.
Hand protection		
Remarks	:	The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Eye protection	:	Eye wash bottle with pure water Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems.
Skin and body protection	:	Dust impervious protective suit Choose body protection according to the amount and concen- tration of the dangerous substance at the work place.
Hygiene measures	:	When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: solid, crystalline, granules
Colour	: clear, white
Odour	: odorless



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Odour Threshold pH Freezing Point (Melting point/range)	: No data available : 2 - 2.5 (as aqueous solution) : 98 - 153 °C (208 - 307 °F)
Boiling Point (Boiling point/boiling range)	: Decomposition: Decomposes below the boiling point.
Flash point	: Not applicable
Evaporation rate Flammability (solid, gas) Upper explosion limit	 No data available No data available No data available
Lower explosion limit	: No data available
Vapour pressure	: Not applicable
Relative vapour density Relative density	: No data available : 1.665Reference substance: (water = 1)
Density Solubility(ies)	: No data available
Water solubility	: soluble in cold water
Solubility in other solvents Partition coefficient: n-	: No data available : No data available
octanol/water	
Auto-ignition temperature	
Thermal decomposition	: > 170 °C

SECTION 10. STABILITY AND REACTIVITY

Reactivity Chemical stability Possibility of hazardous reac- tions	 No dangerous reaction known under conditions of normal use. Stable Product will not undergo hazardous polymerization. Dust may form explosive mixture in air. Stable under recommended storage conditions.
Conditions to avoid	: Keep away from heat, flame, sparks and other ignition sources.
Incompatible materials	 Copper Zinc aluminum metals subject to acid corrosion Oxidizing agents Reducing agents Bases metal nitrates Alkalis carbonates
Hazardous decomposition products	: carbon dioxide and carbon monoxide



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SECTION 11. TOXICOLOGICAL INFORMATION

Skin corrosion/irritation

Product:

Remarks: May cause skin irritation and/or dermatitis.

Serious eye damage/eye irritation

Product:

Remarks: Irritating to eyes.

Components:

77-92-9: Species: Rabbit Result: Irritating to eyes.

Carcinogenicity	
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.
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
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.
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.

Aspiration toxicity

Product:

No aspiration toxicity classification

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity No data available



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Persistence and degradability	y .
No data available	
Bioaccumulative potential	
No data available	
Mobility in soil	
No data available	
Other adverse effects	
Product:	
Ozone-Depletion Potential	: Regulation: 40 CFR Protection of Environment; Part 82 Pro- tection of Stratospheric Ozone - CAA Section 602 Class I Substances
	Remarks: This product neither contains, nor was manufac- tured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
Additional ecological infor- mation	: No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods	
Waste from residues	 Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Uni- var Solutions ChemCare: 1-800-909-4897
Contaminated packaging	: Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

DOT (Department of Transportation): Not regulated as a dangerous good

UNRTDG

Not regulated as a dangerous good IATA (International Air Transport Association): Not regulated as a dangerous good

IMDG-Code: Not regulated as a dangerous good



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SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards	: No SARA Hazards
SARA 302	: No chemicals in this material are subject to the reporting re- quirements of SARA Title III, Section 302.
SARA 313	: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

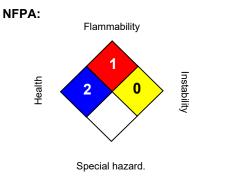
US State Regulations

Massachusetts Right	Γο Know		
		No components are subject to the Massachuse Know Act.	tts Right to
Pennsylvania Right To	Know		
77-92-9	Э	Citric acid	90 - 100 %
New Jersey Right To H	Know		
77-92-9	Ð	Citric acid	90 - 100 %
California Prop 65	:	This product does not contain any chemicals k of California to cause cancer, birth defects, or a productive harm.	
The components of th TSCA	•	t are reported in the following inventories: On TSCA Inventory	



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DSL	: All components of this product are on the Canadian DSL
AICS	: On the inventory, or in compliance with the inventory
NZIoC	: On the inventory, or in compliance with the inventory
ENCS	: On the inventory, or in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory

SECTION16. OTHER INFORMATION



HMIS III:

HEALTH	2
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight, 2 = Moderate, 3 = High

4 =Extreme, * = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions Product Compliance Department (1-855-429-2661) SDSNA@univarsolutions.com.

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Material number: 16142689, 16141340, 16140969

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Govern- ment Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level

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DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Subs-	NIOSH	National Institute for Occupational
	tances List		Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZloC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenar- io Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chem- icals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing	PICCS	Philippines Inventory of Commer-
	Chemical Substances		cial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composi- tion, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		