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1. Identification of the substance/preparation and the company/undertaking

GHS product identifier

Product name: Potassium Citrate and Citric Acid Oral Solution USP

Other mean of identification

Product code(s):	0121-0676-16
UN-Number:	NA
Synonyms:	Compare to Cytra-K®

Recommended use of the chemical and restrictions on use

Recommended use:	Pharmaceutical product used as an alkalinizing agent in those conditions where long-term maintenance of alkaline urine is desirable.
Uses advised against:	Do not use except as prescribed.

Supplier address/information

Pharmaceutical Associates, Inc. 201 Delaware Street Greenville, SC 29605 (864) 277 -7282

Emergency telephone number: CHEMTREC 800.424.9300

2. Hazards Identification

Classification	This product is a mixture and is a pharmaceutical product. It is considered non-Hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200).
Chemical family:	Mixture
Statement of Hazard: Short term: Long term:	Large doses may cause hyperkalemia and alkalosis, especially in the presence of renal disease. Not available
Additional Hazard Information:	Overdosage rarely causes serious hyperkalemia; however, if excretory mechanisms are impaired, hyperkalemia can result.
Known Clinical Effects:	Therapeutic use of this substance is usually well tolerated.
EU Indication of danger:	Not classified.

Emergency overview

Seek medical attention in case of accidental exposure or overdose. The product is generally safe when used as prescribed.

Note: This document has been prepared in accordance with standards for workplace safety, which require the inclusion of all known hazards of the active substance or its intermediates regardless of the potential risk. The precautionary statements and warnings included may not apply in all cases. Your needs may vary depending upon the potential of exposure in your workplace.



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Precautionary state	ments			
General advice:	Seek medical attention in case of	accidental exposure or ove	erdose.	
Eyes:	Avoid contact with eyes.			
Skin Contact:	Avoid skin contact.			
Inhalation:	Not intended for inhalation.			
Ingestion:	Generally safe at recommended of	doses. In case of overdose,	seek medical attention in	mmediately.
Storage:	There are no special storage con- specified on the label.	ditions for safety. For produ	ict integrity, store under c	onditions
Disposal:	Dispose of in accordance with ap	plicable laws and regulatior	IS.	

3. Composition/Information on ingredients

Chemical name	CAS-No	mg/5 mL	Trade Secret
Potassium Citrate	6100-05-6	1100 mg/5 mL	
Citric Acid Anhydrous	77-92-9	334 mg/5 mL	
Polyethylene Glycol	25322-68-3		Х
Propylene Glycol	57-55-6		Х
Sodium Benzoate	532-32-1		Х
Sorbitol Solution	Mixture		Х
FD&C Red No. 40	25956-17-6		Х
Berry Flavor	Mixture		Х

4. First aid measures

Description of necessary first-aid measures

Eye contact:

Flush with running water for 15 minutes holding eyelids open. Contact medical personnel if irritation persists.

Skin contact: Wash contaminated area thoroughly. If irritation persists, contact medical personnel.

Inhalation:

Remove to fresh air and contact medical personnel.



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Ingestion:

Overdosage or accidental ingestion - Contact poison control or medical personnel.

Most important symptoms/effects, acute and delayed

Overdosage rarely causes serious hyperkalemia; however, if excretory mechanisms are impaired, hyperkalemia can result. Hyperkalemia, when detected, must be treated immediately because lethal levels may be reached in a few hours.

Indication of immediate medical attention and special treatment needed, if necessary NA

Notes to Physician: NA

5. Fire-fighting measures

Suitable extinguishing media:	Use carbon dioxide, dry chemical or water spray.
Specific hazards arising from the chemical	May burn emitting oxides of chlorine and nitrogen.
Explosion data:	Not applicable
Protective equipment and precautions for firefighters	During all firefighting activities, wear appropriate protective equipment, including self-contained breathing apparatus.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Environmental precautions

Personnel involved in clean-up should wear appropriate personal protective equipment (See Section 8). Minimize exposure.

Place waste in an appropriately labeled, sealed container for disposal. Care should be taken to avoid environmental release.

Methods and materials for containment and cleaning up

- Methods for containment:
- Methods for cleaning up:

Isolate area around spill as specified by site procedures. Absorb the liquid with suitable material. Dispose of spill material in accordance with applicable federal, state or local regulations.

7. Handling and storage

Precautions for safe handling Handling:

No special handling required for hazard control under conditions of normal product use.



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Condition	s for safe storage	, including any incompa	itibilities		
Storage:				uired for hazard control. For p ge recommendations on the o nd insert.	
Incompatik	ole products:		As a precautionary mea	asure, keep away from strong	g oxidizers.

8. Exposure controls/personal protection

Control parameters

Exposure guidelines: The exposure guidelines listed below are for the individual components and not the product itself.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Potassium Citrate	Not Available	Not Available	Not Available
Citric Acid Anhydrous	10 mg/m ³ TWA	15 mg/m ³ TWA	Not Available
Polyethylene Glycol	10 mg/m ³ TWA (WEEL)	Not Available	Not Available
Propylene Glycol	Not Available	10 mg/m ³ TWA (WEEL)	Not Available
Sodium Benzoate	Not Available	Not Available	Not Available
Sorbitol Solution	Not Available	Not Available	Not Available
FD&C Red No. 40	Not Available	Not Available	Not Available
Berry Flavor	Not Available	Not Available	Not Available

Appropriate engineering controls Engineering measures:

Engineering controls should be used to limit exposure.

Individual protection measures, such as personal protective equipment			
Eye/face protection:	Not required under normal conditions of use. Wear safety glasses or goggles if eye contact is possible.		
Skin and body protection:	Not required under normal conditions of use. Wear protective clothing when working with large quantities.		
Respiratory protection:	Not required under normal use of the product. If the applicable PEL (Permissible Exposure Limit) is exceeded use an appropriate respirator.		
Hygiene measures:	Wash hands thoroughly after use.		

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state:	Solution
Odor:	Berry
Appearance:	Clear red liquid
Odor threshold:	Not available



Safety Data Sheet - - . --

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Pro	operty	Values	Remarks/	Method
рH	I	4.9 - 5.4	Current	USP
Me	elting point/range	Not applicable		
Во	ling point/boiling range	Not available		
Fla	ash point	Not applicable		
Ev	aporation rate	Not applicable		
Fla	ammability (solid, gas)	Not applicable		
Fla	ammability limits in air	Not applicable		
	-upper flammability limit	Not applicable		
	-lower flammability limit	Not applicable		
Va	por pressure	Not applicable		
Va	por density	Not applicable		
Sp	ecific gravity	1.2	Current	USP
Wa	ater solubility	Not applicable		
So	lubility in other solvents	Not applicable		
	ntition coefficient: n- tanol/water	Not applicable		
Au	toignition temperature	Not applicable		
De	ecomposition temperature	Not applicable		
Vis	scosity	Not available		
Fla	ammable properties	Not applicable		
Ex	plosive properties	Not applicable		
Ox	kidizing properties	Not applicable		

Other information

VOC content (%)

NA

10. Stability and reactivity

Reactivity	Stable at normal conditions
Chemical stability	Stable at normal conditions
Possibility of hazardous reactions	Stable at normal conditions
Conditions to avoid	None known
Incompatible materials	As a precautionary measure, keep away from strong oxidizers



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Hazardous decomposition products None known

11. Toxicological information

Information on likely routes of exposure

Product information:

- Not Available Inhalation: •
- Eve contact: Not Available
- Skin contact: Not Available • Not Available
- Ingestion:
- LD50 oral LD50 dermal LC50 inhalation **Chemical name** Potassium Citrate Not Available Not Available Not Available Not available Citric Acid Anhydrous 5400 mg/kg Rat >2000 mg/kg Rat Polyethylene Glycol 30200 mg/kg Rat 20000 mg/kg Rabbit 13 ppm 8 hr Rat Propylene Glycol 20000 mg/kg Rat 20800 mg/kg Rabbit Not Available Sodium Benzoate 2100 mg/kg Rat Not Available Not Available Sorbitol Solution Not Available Not Available Not Available FD&C Red No.40 >10000mg/kg Rat >10000 mg/kg Rabbit Not Available Berry Flavor Not Available Not Available Not Available

Symptoms related to the physical, chemical and toxicological characteristics No data available

Delayed and immediate effects and also chronic effects from short and long term exposure

Sensitization:

- No data available
- Mutagenic effects: No data available •
- Carcinogenicity: Not carcinogenetic • No data available
- Reproductive toxicity:
- STOT single exposure: No data available
- STOT repeated exposure: No data available •
- Aspiration hazard: No data available

Numerical measures of toxicity – product

No data available

12. Ecological information

Ecotoxicity:

Environmental properties for this product have not been thoroughly evaluated. Releases to the environment should be avoided.



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Persistence and Degradability No data available

Bioaccumulation No data available

Other adverse effects: No data available

The following table lists the data for the individual components, if available.

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to micro- organisms	Daphnia Magna (water flea)
Potassium Citrate	Not Available	Not Available	Not Available	Not Available
Citric Acid Anhydrous	Not Available	440 mg/L 48 hr Leuciscus idus melanotus	Not Available	1535 mg/L 24 hr.
Polyethylene Glycol	Not Available	>5000 mg/L 96 hr Pimephales Promelas	Not Available	Not Available
Propylene Glycol	Not Available	52930 mg/L 96 hr Pimephales Promelas	Not Available	13020 mg/L 48 hr.
Sodium Benzoate	Not Available	484 mg/L 96 hr. Pimephales Promelas	Not Available	Not Available
Sorbitol Solution	Not Available	Not Available	Not Available	Not Available
FD&C Red No. 40	Not Available	Not Available	Not Available	Not Available
Berry Flavor	Not Available	Not Available	Not Available	Not Available

13. Disposal considerations

Waste disposal methods

Dispose of waste in accordance with all federal, state and local regulations.

Contaminated packaging

Dispose of waste in accordance with all federal, state and local regulations.

14. Transport information

Notes:

Not regulated for transport under USDOT, IATA, TDG, IMDG or other regulations.



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15. Regulatory information

International inventories EINECS inventories:

Citric Acid, Potassium Citrate Monohydrate, Propylene Glycol, Polyethylene Glycol, FD&C Red No. 40, and Sodium Benzoate are listed in the EINECS inventory.

Legend

TSCA:

United States Toxic Substances Control Act 8(b) inventory not applicable for product. The product contains Citric Acid, Polyethylene Glycol 400, Propylene Glycol, FD&C Red No. 40, and Sodium Benzoate which are included.

U.S. Federal regulations

Not Available

SARA 311/312 Hazard categories: Not Applicable

Clean Water Act

This product **does not** contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA:

No components are listed under CERCLA.

California Proposition 65:

This product does not contain any chemicals listed under Proposition 65.

U.S. state Right-to-Know regulations

"X" designates that the ingredients are listed on the state Right-to-Know list

Chemical name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Potassium Citrate	Х		Х		
Citric Acid	Х		Х		
Polyethylene Glycol	Х		Х		
Propylene Glycol	Х		Х		
Sodium Benzoate	Х		Х		
Sorbitol Solution	Х		Х		
FD&C Red No. 40					
Berry Flavor					

U.S. EPA label information:

Not applicable



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16. Other information

Prepared by:	Regulatory Affairs
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