

Safety Data Sheet

Issuing date: 03/10/2015

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

GHS product identifier

Product name: Trihexyphenidyl Hydrochloride Oral Solution, USP

Other means of identification

Product code(s): **0121-0658-16**
UN-Number: NA
Synonyms: Compare to Artane®

Recommended use of the chemical and restrictions on use

Recommended use: Pharmaceutical product used as an adjunct in the treatment of all forms of parkinsonism (postencephalitic, arteriosclerotic, and idiopathic).
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: May be harmful if swallowed. May cause central nervous system effects.

Additional Hazard Information:

Short term: Potential side effects associated with the use of any atropine-like drugs, including trihexyphenidyl, include cognitive dysfunctions, including confusion and memory impairment; constipation, drowsiness, urinary hesitancy or retention, tachycardia, dilation of the pupil, increased intraocular pressure, choreiform movements, weakness, vomiting, and headache. Exacerbation of parkinsonism with abrupt treatment withdrawal has been reported. Neuroleptic malignant syndrome with abrupt treatment withdrawal has been reported.

Long term: Not Available

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 statements

General advice: Seek medical attention in case of accidental exposure or overdose.

Eyes: Avoid contact with eyes.

Skin Contact: Avoid skin contact.

Inhalation: Not intended for inhalation.

Ingestion: Generally safe at recommended doses. In case of overdose, seek medical attention immediately.

Storage: There are no special storage conditions for safety. For product integrity, store under conditions specified on the label.

Disposal: Dispose of in accordance with applicable laws and regulations.

3. Composition/Information on ingredients

Chemical name	CAS-No	mg/5mL	Trade Secret
Trihexyphenidyl Hydrochloride	58947-95-8	2 mg/5 mL	
Alcohol 190 Proof	Mixture 64-17-5 (200 Proof)	5% v/v	
Citric Acid Anhydrous	77-92-9		X
Methylparaben	99-76-3		X
Propylparaben	94-13-3		X
Sodium Chloride	7647-14-5		X
Sorbitol Solution	Mixture		X
Lime Mint Flavor	Mixture		X

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.

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Inhalation:

Remove to fresh air and contact medical personnel.

Ingestion:

Overdosage or accidental ingestion Contact medical personnel or poison control immediately if overdosage is suspected.

Most important symptoms/effects, acute and delayed

Overdosage with trihexyphenidyl produces typical central symptoms of atropine intoxication (the central anticholinergic syndrome). Correct diagnosis depends upon recognition of the peripheral signs of parasympathetic blockade, including dilated and sluggish pupils; warm, dry skin; facial flushing; decreased secretions of the mouth, pharynx, nose, and bronchi; foul-smelling breath; elevated temperature; tachycardia, cardiac arrhythmias; decreased bowel sounds; and urinary retention. Neuropsychiatric signs such as delirium, disorientation, anxiety, hallucinations, illusions, confusion, incoherence, agitation, hyperactivity, ataxia, lip smacking and tasting movements, loss of memory, paranoia, combativeness, and seizures may be present. The condition can progress to stupor, coma, paralysis, cardiac and respiratory arrest, and death.

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

Immediate medical attention is required if overdose is suspected.

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

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

Environmental precautions

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.

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7. Handling and storage

Precautions for safe handling

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

Conditions for safe storage, including any incompatibilities

Storage: No special storage required for hazard control. For product protection, follow storage recommendations on the case label, primary product label and insert.

Incompatible products: As a precautionary measure, keep away from strong 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
Trihexyphenidyl Hydrochloride	Not Available	Not Available	Not Available
Alcohol 190 Proof	Not Available	1900 mg/m ³ TWA (200 Proof)	1000 ppm TWA
Citric Acid Anhydrous	10 mg.m ³ TWA	15 mg/m ³ TWA	Not Available
Methylparaben	Not Available	Not Available	Not Available
Propylparaben	Not Available	Not Available	Not Available
Sodium Chloride	Not Available	Not Available	Not Available
Sorbitol Solution	Not Available	Not Available	Not Available
Lime Mint 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: Lime Mint
 Appearance: Clear liquid
 Odor threshold: Not available

Property	Values	Remarks/Method
pH	2.0 – 3.0	Current USP
Melting point/range	Not applicable	
Boiling point/boiling range	Not available	
Flash point	Not applicable	
Evaporation rate	Not applicable	
Flammability (solid, gas)	Not applicable	
Flammability limits in air	Not applicable	
-upper flammability limit	Not applicable	
-lower flammability limit	Not applicable	
Vapor pressure	Not applicable	
Vapor density	Not applicable	
Specific gravity	1.2	Current USP
Water solubility	Not applicable	
Solubility in other solvents	Not applicable	
Partition coefficient: n-octanol/water	Not applicable	
Autoignition temperature	Not applicable	
Decomposition temperature	Not applicable	
Viscosity	Not available	
Flammable properties	Not applicable	
Explosive properties	Not applicable	
Oxidizing properties	Not applicable	

Other information VOC content (%)

Alcohol 5% v/v

10. Stability and reactivity

Reactivity

Stable at normal conditions

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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.
Hazardous decomposition products	None known

11. Toxicological information

Information on likely routes of exposure

Product information:

- Inhalation: Not Available
- Eye contact: Not Available
- Skin contact: Not Available
- Ingestion: Not Available

The information in the table below is for the individual components and not the product.

Chemical name	LD50 oral	LD50 dermal	LC50 inhalation
Trihexyphenidyl Hydrochloride	1630 mg/kg Rat	Not Available	Not Available
Alcohol 190 Proof	3632 mg/kg Mouse	Not Available	20000 ppm 10h Rat
Citric Acid Anhydrous	5400 mg/kg Rat	>2000 mg/kg Rat	Not Available
Methylparaben	2100 mg/kg rat	No skin irritation 24 hr Rabbit	Not Available
Propylparaben	7500 mg/kg Mouse	Not Available	Not Available
Sodium Chloride	3000 mg/kg Rat	>10000 mg/kg Rabbit	>42000 mg/ m ³ 1 hr. Rat
Sorbitol Solution	Not Available	Not Available	Not Available
Lime Mint Flavor	Not available	Not Available	Not Available

Symptoms related to the physical, chemical and toxicological characteristics

No data available

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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
- Reproductive toxicity: No data available
- 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 have not been thoroughly evaluated. Releases to the environment should be avoided.

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)
Trihexyphenidyl Hydrochloride	Not Available	Not Available	Not Available	Not Available
Alcohol 190 Proof	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.
Methylparaben	91 mg/L 72 hr Pseudokirchneriella Subcapitata	59.5 mg/L 96 hr Oryzias latipes	Not Available	41.1 mg/L 48 hr
Propylparaben	7.6 mg/L 72 hr Pseudokirchneriella Subcapitata	6.4 mg/L 96 h Danio rerio	Not Available	15.4 mg/L 72 hr.
Sodium Chloride	Not Available	5840 mg/L 96 hr. Bluegill	Not Available	1661 mg/L 48 hr.
Sorbitol Solution	Not Available	Not Available	Not Available	Not Available
Lime Mint Flavor	Not Available	Not Available	Not Available	Not Available

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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.

15. Regulatory information

International inventories

Legend

TSCA:

United States Toxic Substances Control Act 8(b) inventory not applicable for product. The following components are included on the inventory: Trihexyphenidyl, Citric Acid, Methylparaben, Propylparaben, Ethanol and Sodium Chloride

EINECS:

The EINECS inventory includes: Citric Acid, Methylparaben, Propylparaben, Ethanol and Sodium Chloride

U.S. Federal regulations:

Not Applicable

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 listed.

California Proposition 65:

This product contains Alcohol which is listed in Proposition 65.

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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
Trihexyphenidyl	X		X		
Alcohol 200 Proof	X	X	X	X	X
Citric Acid Anhydrous	X		X		
Methylparaben	X		X		
Propylparaben	X		X		
Sorbitol Solution	X		X		
Sodium Chloride	X		X		
Lime Mint Flavor					

U.S. EPA label information:

Not applicable

16. Other information

Prepared by: Pharmaceutical Associates Regulatory Affairs Department
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General Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet