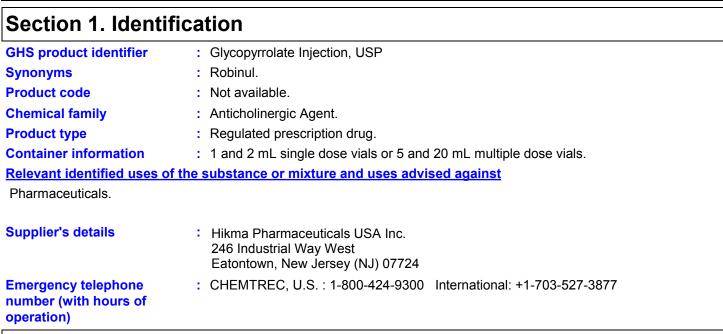
SAFETY DATA SHEETS

This SDS packet was issued with item: 078941342

N/A

SAFETY DATA SHEET

Glycopyrrolate Injection, USP



Section 2. Hazards identification

| OSHA/HCS status | : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product. |
|--|--|
| Classification of the substance or mixture | : Not classified. |
| GHS label elements | |
| Signal word | : No signal word. |
| Hazard statements | : No known significant effects or critical hazards. |
| Precautionary statements | |
| Prevention | : Not applicable. |
| Response | : Not applicable. |
| Storage | : Not applicable. |
| Disposal | : Not applicable. |
| Hazards not otherwise classified | : None known. |

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Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Other means of identification

: Robinul.

CAS number/other identifiers

| Ingredient name | % | CAS number |
|-----------------|----------|------------|
| Water | 60 - 100 | 7732-18-5 |
| Benzyl alcohol | 0.1 - 1 | 100-51-6 |
| Glycopyrrolate | 0 - 0.1 | 596-51-0 |

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

| Eye contact | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs. |
|--------------|---|
| Inhalation | : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. |
| Skin contact | : Flush contaminated skin with plenty of water. Get medical attention if symptoms occur. |
| Ingestion | : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. |

Most important symptoms/effects, acute and delayed

| Potential acute health effects | | | |
|--------------------------------|---|--|--|
| Eye contact | No known significant effects or critical hazards. | | |
| Inhalation | No known significant effects or critical hazards. | | |
| Skin contact | No known significant effects or critical hazards. | | |
| Ingestion | No known significant effects or critical hazards. | | |
| Over-exposure signs/symptoms | | | |
| Eye contact | No known significant effects or critical hazards. | | |
| Inhalation | : No known significant effects or critical hazards. | | |
| Skin contact | No known significant effects or critical hazards. | | |
| Ingestion | No known significant effects or critical hazards. | | |
| | | | |

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

| Notes to physician | : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
|----------------------------|--|
| Specific treatments | : No specific treatment. |
| Protection of first-aiders | : No action shall be taken involving any personal risk or without suitable training. |

See toxicological information (Section 11)

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Section 5. Fire-fighting measures

| Extinguishing media | |
|--|---|
| Suitable extinguishing media | : Use an extinguishing agent suitable for the surrounding fire. |
| Unsuitable extinguishing media | : None known. |
| Specific hazards arising from the chemical | : No specific fire or explosion hazard. |
| Hazardous thermal decomposition products | : No specific data. |
| Special protective actions for fire-fighters | : No special protection is required. |
| Special protective equipment for fire-fighters | : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |

Section 6. Accidental release measures

| Personal precautions, protect | tive equipment and emergency procedures |
|--------------------------------|--|
| For non-emergency personnel | : No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. |
| For emergency responders | : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| Environmental precautions | : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |
| Methods and materials for co | ontainment and cleaning up |
| Spill | : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. |

Section 7. Handling and storage

Precautions for safe handling

| Protective measures | : Put on appropriate personal protective equipment (see Section 8). |
|--|---|
| Advice on general occupational hygiene | : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures. |



Section 7. Handling and storage

| Conditions for safe storage, | | Store in accordance with local regulations. Store in original container protected from |
|------------------------------|--------|--|
| including any | C | direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials |
| incompatibilities | r L | see Section 10) and food and drink. Keep container tightly closed and sealed until eady for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. |

Section 8. Exposure controls/personal protection

| Control parameters | | | |
|----------------------------------|---|-----------------------------------|--|
| Occupational exposure lim | | | |
| None. | | | |
| Appropriate engineering controls | o special ventilation requirements. Good general ventilation should ontrol worker exposure to airborne contaminants. If this product con ith exposure limits, use process enclosures, local exhaust ventilation ngineering controls to keep worker exposure below any recommend nits. | ntains ingredients n or other | |
| Environmental exposure controls | missions from ventilation or work process equipment should be che ey comply with the requirements of environmental protection legisla | | |
| Individual protection measu | | | |
| Hygiene measures | /ash hands, forearms and face thoroughly after handling chemical p ating, smoking and using the lavatory and at the end of the working at eyewash stations and safety showers are close to the workstatio | period. Ensure | |
| Eye/face protection | afety eyewear complying with an approved standard should be used ssessment indicates this is necessary to avoid exposure to liquid sp ases or dusts. If contact is possible, the following protection should a assessment indicates a higher degree of protection: safety glass hields. | lashes, mists, be worn, unless | |
| Skin protection | | | |
| Hand protection | hemical-resistant, impervious gloves complying with an approved s orn at all times when handling chemical products if a risk assessme ecessary. | | |
| Body protection | ersonal protective equipment for the body should be selected based erformed and the risks involved and should be approved by a specia andling this product. | | |
| Other skin protection | ppropriate footwear and any additional skin protection measures sh ased on the task being performed and the risks involved and should pecialist before handling this product. | | |
| Respiratory protection | se a properly fitted, air-purifying or supplied air respirator complying andard if a risk assessment indicates this is necessary. Respirator ased on known or anticipated exposure levels, the hazards of the pr orking limits of the selected respirator. | selection must be | |

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Section 9. Physical and chemical properties

Appearance

| Physical state | : Liquid. [Aqueous solution.] |
|--|--|
| Color | : Colorless. |
| Odor | : Not available. |
| Odor threshold | : Not available. |
| рН | : 2 to 3 |
| Melting point | : Not available. |
| Boiling point | : Not available. |
| Flash point | : Not applicable. |
| Burning time | : Not applicable. |
| Burning rate | : Not applicable. |
| Evaporation rate | : Not available. |
| Flammability (solid, gas) | : Not available. |
| Lower and upper explosive (flammable) limits | : Not available. |
| Vapor pressure | : Not available. |
| Vapor density | : Not available. |
| Relative density | : Not available. |
| Solubility | : Easily soluble in the following materials: cold water and hot water. |
| Solubility in water | : Not available. |
| Partition coefficient: n- octanol/water | : Not available. |
| Auto-ignition temperature | : Not available. |
| Decomposition temperature | : Not available. |
| SADT | : Not available. |
| Viscosity | : Not available. |
| | |

Section 10. Stability and reactivity

| Reactivity | : No specific test data related to reactivity available for this product or its ingredients. |
|------------------------------------|--|
| Chemical stability | : The product is stable. |
| Possibility of hazardous reactions | : Under normal conditions of storage and use, hazardous reactions will not occur. |
| Conditions to avoid | : No specific data. |
| Incompatible materials | : Reactive or incompatible with the following materials: oxidizing materials. |
| Hazardous decomposition products | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |



Section 11. Toxicological information

| | Diogical information |
|---|--|
| Information on toxicological | effects |
| Acute toxicity | |
| There is no data available. | |
| Irritation/Corrosion | |
| There is no data available. | |
| Sensitization | |
| There is no data available. | |
| Mutagenicity | |
| There is no data available. | |
| Carcinogenicity | |
| There is no data available. | |
| Reproductive toxicity | |
| There is no data available. | |
| <u>Teratogenicity</u> | |
| There is no data available. | |
| Specific target organ toxici | <u>ty (single exposure)</u> |
| There is no data available. | ty (repeated expective) |
| Specific target organ toxici There is no data available. | ty (repeated exposure) |
| Aspiration hazard | |
| There is no data available. | |
| mere is no data available. | |
| Information on the likely routes of exposure | : Dermal contact. Eye contact. Inhalation. Ingestion. |
| Potential acute health effects | <u>S</u> |
| Eye contact | : No known significant effects or critical hazards. |
| Inhalation | : No known significant effects or critical hazards. |
| Skin contact | : No known significant effects or critical hazards. |
| Ingestion | : No known significant effects or critical hazards. |
| | |
| Symptoms related to the phy | vsical, chemical and toxicological characteristics |
| Eye contact | : No known significant effects or critical hazards. |
| Inhalation | : No known significant effects or critical hazards. |
| Skin contact | : No known significant effects or critical hazards. |
| Ingestion | : No known significant effects or critical hazards. |
| | |
| | cts and also chronic effects from short and long term exposure |
| Short term exposure | |
| Potential immediate effects | : No known significant effects or critical hazards. |
| Potential delayed effects | : No known significant effects or critical hazards. |
| Long term exposure | |
| Potential immediate | : No known significant effects or critical hazards. |
| effects | |
| | |



Glycopyrrolate Injection, USP

Section 11. Toxicological information

| Potential delayed effects | : No known significant effects or critical hazards. | | | |
|----------------------------------|---|--|--|--|
| Potential chronic health effects | | | | |
| General | : No known significant effects or critical hazards. | | | |
| Carcinogenicity | : No known significant effects or critical hazards. | | | |
| Mutagenicity | : No known significant effects or critical hazards. | | | |
| Teratogenicity | : No known significant effects or critical hazards. | | | |
| Developmental effects | : No known significant effects or critical hazards. | | | |
| Fertility effects | : No known significant effects or critical hazards. | | | |

Numerical measures of toxicity

Acute toxicity estimates

There is no data available.

Other information : FDA Class B

Section 12. Ecological information

Toxicity

There is no data available.

Persistence and degradability

There is no data available.

Bioaccumulative potential

There is no data available.

Mobility in soil

Soil/water partition : Not available. coefficient (Koc)

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.



Section 14. Transport information

| | DOT Classification | IMDG | ΙΑΤΑ |
|-------------------------------|--------------------|----------------|----------------|
| UN number | Not regulated. | Not regulated. | Not regulated. |
| UN proper shipping name | - | - | - |
| Transport hazard class(es) | - | - | - |
| Packing group | - | - | - |
| Environmental hazards | No. | No. | No. |
| Additional information | - | - | - |

AERG : Not applicable.

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according : Not available. to Annex II of MARPOL 73/78 and the IBC Code

SARA 311/312

Section 15. Regulatory information

| U.S. Federal regulations | : TSCA 8(a) CDR Exempt/Partial exemption: Not determined |
|---|--|
| - | United States inventory (TSCA 8b): Not determined. |
| Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) | : Not listed |
| Clean Air Act Section 602 Class I Substances | : Not listed |
| Clean Air Act Section 602 Class II Substances | : Not listed |
| DEA List I Chemicals (Precursor Chemicals) | : Not listed |
| DEA List II Chemicals (Essential Chemicals) | : Not listed |
| SARA 302/304 | |
| Composition/information | <u>i ingredients</u> |
| No products were found. | |
| SARA 304 RQ | : Not applicable. |
| | |

Glycopyrrolate Injection, USP

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Section 15. Regulatory information

Classification

: Not applicable.

Composition/information on ingredients

No products were found.

| State regulations | |
|---|--|
| Massachusetts | : None of the components are listed. |
| New York | : None of the components are listed. |
| New Jersey | : None of the components are listed. |
| Pennsylvania | : None of the components are listed. |
| <u>California Prop. 65</u> | |
| No products were found. | |
| International regulations | |
| International lists | Australia inventory (AICS): All components are listed or exempted. China inventory (IECSC): Not determined. Japan inventory: Not determined. Korea inventory: Not determined. Malaysia Inventory (EHS Register): Not determined. New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted. Philippines inventory (PICCS): Not determined. Taiwan inventory (CSNN): Not determined. |
| Chemical Weapons Convention List Schedule I Chemicals | : Not listed |
| Chemical Weapons Convention List Schedule II Chemicals | : Not listed |
| Chemical Weapons Convention List Schedule III Chemicals | : Not listed |

Section 16. Other information

| <u>History</u> | | |
|--------------------------|---|---|
| Revision date mm/dd/yyyy | 1 | 12/15/2018 |
| Version | 1 | 2 |
| Prepared by | : | KMK Regulatory Services Inc. |
| Key to abbreviations | : | ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Internediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations |



Section 16. Other information

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its

subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.