1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

Product Identifier

Material Name: Pancuronium Bromide Injection, USP (Hospira Inc.)
Trade Name: Pancuronium Bromide Injection
Chemical Family: Not determined

Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Intended Use: Pharmaceutical product

Details of the Supplier of the Safety Data Sheet

Hospira, A Pfizer Company
275 North Field Drive
Lake Forest, Illinois 60045
1-800-879-3477

Emergency telephone number:
CHEMTREC (24 hours): 1-800-424-9300
Contact E-Mail: pfizer-MSDS@pfizer.com

Hospira UK Limited
Horizon
Honey Lane
Hurley
Maidenhead, SL6 6RJ
United Kingdom

Emergency telephone number:
International CHEMTREC (24 hours): +1-703-527-3887

2. HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

GHS - Classification Not classified as hazardous

Label Elements

Signal Word: Not Classified
Hazard Statements: Not classified in accordance with international standards for workplace safety.

Other Hazards

An Occupational Exposure Value has been established for one or more of the ingredients (see Section 8).

Note:

This document has been prepared in accordance with standards for workplace safety, which requires the inclusion of all known hazards of the product or its ingredients regardless of the potential risk. The precautionary statements and warning included may not apply in all cases. Your needs may vary depending upon the potential for exposure in your workplace.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous
SAFETY DATA SHEET

Material Name: Pancuronium Bromide Injection, USP (Hospira Inc.)
Revision date: 08-Aug-2018

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>EU EINECS/ELINCS List</th>
<th>GHS Classification</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pancuronium Bromide</td>
<td>15500-66-0</td>
<td>239-532-5</td>
<td>Acute Tox 3 (H301)</td>
<td>0.1</td>
</tr>
<tr>
<td>ACETIC ACID</td>
<td>64-19-7</td>
<td>200-580-7</td>
<td>Skin Corr. 1A (H314)</td>
<td>**</td>
</tr>
<tr>
<td>BENZYL ALCOHOL</td>
<td>100-51-6</td>
<td>202-859-9</td>
<td>Acute Tox. 4 (H302)</td>
<td>1</td>
</tr>
<tr>
<td>SODIUM HYDROXIDE</td>
<td>1310-73-2</td>
<td>215-185-5</td>
<td>Skin Corr. 1A (H314)</td>
<td>**</td>
</tr>
</tbody>
</table>

Additional Information:
* Proprietary
** to adjust pH
Ingredient(s) indicated as hazardous have been assessed under standards for workplace safety. In accordance with 29 CFR 1910.1200, the exact percentage composition of this mixture has been withheld as a trade secret.

For the full text of the CLP/GHS abbreviations mentioned in this Section, see Section 16

4. FIRST AID MEASURES

Description of First Aid Measures

Eye Contact: Rinse thoroughly with plenty of water, also under the eyelids. If irritation occurs or persists, get medical attention.

Skin Contact: Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.

Ingestion: Never give anything by mouth to an unconscious person. Wash out mouth with water. Do not induce vomiting unless directed by medical personnel. Seek medical attention immediately.

Inhalation: Remove to fresh air and keep patient at rest. Seek medical attention immediately.

Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms and Effects of Exposure: For information on potential signs and symptoms of exposure, See Section 2 - Hazards Identification and/or Section 11 - Toxicological Information.

Medical Conditions Aggravated by Exposure: None known

Indication of the Immediate Medical Attention and Special Treatment Needed

Notes to Physician: None

5. FIRE FIGHTING MEASURES

Extinguishing Media: As for primary cause of fire.

Special Hazards Arising from the Substance or Mixture

Hazardous Combustion Products: Formation of toxic gases is possible during heating or fire.
SAFETY DATA SHEET

Material Name: Pancuronium Bromide Injection, USP (Hospira Inc.)
Revision date: 08-Aug-2018

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 Material for Containment and Cleaning Up

Measures for Cleaning / Collecting:
Contain the source of spill if it is safe to do so. Collect spill with absorbent material. Clean spill area thoroughly.

Additional Consideration for Large Spills:
Non-essential personnel should be evacuated from affected area. Report emergency situations immediately. Cleanup operations should only be undertaken by trained personnel.

7. HANDLING AND STORAGE

Precautions for Safe Handling
Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. When handling, use appropriate personal protective equipment (see Section 8). Wash thoroughly after handling. Releases to the environment should be avoided. Review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure or environmental releases. Potential points of process emissions of this material to the atmosphere should be controlled with dust collectors, HEPA filtration systems or other equivalent controls.

Conditions for Safe Storage, Including any Incompatibilities
Storage Conditions: Store as directed by product packaging.
Incompatible Materials: None known
Specific end use(s): Pharmaceutical drug product

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters
Refer to available public information for specific member state Occupational Exposure Limits.

ACETIC ACID

ACGIH Threshold Limit Value (TWA) 10 ppm
ACGIH Threshold Limit Value (STEL) 15 ppm
Australia STEL 15 ppm
Australia TWA 37 mg/m³
Austria OEL - MAKs 10 ppm 25 mg/m³
Belgium OEL - TWA 10 ppm 25 mg/m³
Bulgaria OEL - TWA 25.0 mg/m³
Cyprus OEL - TWA 10 ppm 25 mg/m³
Czech Republic OEL - TWA 25 mg/m³
Material Name: Pancuronium Bromide Injection, USP (Hospira Inc.)

Revision date: 08-Aug-2018

Version: 1.0

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**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

<table>
<thead>
<tr>
<th>Country</th>
<th>EU Standard (C)</th>
<th>EU Standard (D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark OEL - TWA</td>
<td>10 ppm</td>
<td>25 mg/m³</td>
</tr>
<tr>
<td>Estonia OEL - TWA</td>
<td>10 ppm</td>
<td>25 mg/m³</td>
</tr>
<tr>
<td>Finland OEL - TWA</td>
<td>5 ppm</td>
<td>13 mg/m³</td>
</tr>
<tr>
<td>Germany - TRGS 900 - TWAs</td>
<td>10 ppm</td>
<td>25 mg/m³</td>
</tr>
<tr>
<td>Germany (DFG) - MAK</td>
<td>10 ppm</td>
<td>25 mg/m³</td>
</tr>
<tr>
<td>Greece OEL - TWA</td>
<td>10 ppm</td>
<td>25 mg/m³</td>
</tr>
<tr>
<td>Hungary OEL - TWA</td>
<td>25 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Ireland OEL - TWAs</td>
<td>10 ppm</td>
<td>25 mg/m³</td>
</tr>
<tr>
<td>Latvia OEL - TWA</td>
<td>10 ppm</td>
<td>25 mg/m³</td>
</tr>
<tr>
<td>Lithuania OEL - TWA</td>
<td>10 ppm</td>
<td>25 mg/m³</td>
</tr>
<tr>
<td>Luxembourg OEL - TWA</td>
<td>10 ppm</td>
<td>25 mg/m³</td>
</tr>
<tr>
<td>Malta OEL - TWA</td>
<td>10 ppm</td>
<td>25 mg/m³</td>
</tr>
<tr>
<td>Netherlands OEL - TWA</td>
<td>25 mg/m³</td>
<td></td>
</tr>
<tr>
<td>OSHA - Final PELS - TWAs:</td>
<td>10 ppm</td>
<td>25 mg/m³</td>
</tr>
<tr>
<td>Poland OEL - TWA</td>
<td>25 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Portugal OEL - TWA</td>
<td>10 ppm</td>
<td>25 mg/m³</td>
</tr>
<tr>
<td>Romania OEL - TWA</td>
<td>10 ppm</td>
<td>25 mg/m³</td>
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<td>Slovakia OEL - TWA</td>
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<td>Spain OEL - TWA</td>
<td>10 ppm</td>
<td>25 mg/m³</td>
</tr>
<tr>
<td>Sweden OEL - TWAs</td>
<td>5 ppm</td>
<td>13 mg/m³</td>
</tr>
<tr>
<td>Switzerland OEL - TWAs</td>
<td>10 ppm</td>
<td>25 mg/m³</td>
</tr>
<tr>
<td>Vietnam OEL - TWAs</td>
<td>25 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

**BENZYL ALCOHOL**

Pfizer OEL TWA-8 Hr: 10 ppm
Bulgaria OEL - TWA: 5.0 mg/m³
Czech Republic OEL - TWA: 40 mg/m³
Finland OEL - TWA: 10 ppm
Latvia OEL - TWA: 5 mg/m³
Lithuania OEL - TWA: 5 mg/m³
Poland OEL - TWA: 240 mg/m³
8. EXPOSURE CONTROLS / PERSONAL PROTECTION

SODIUM CHLORIDE

- Latvia OEL - TWA: 5 mg/m³
- Lithuania OEL - TWA: 5 mg/m³

SODIUM HYDROXIDE

- ACGIH Ceiling Threshold Limit: 2 mg/m³
- Australia PEAK: 2 mg/m³
- Austria OEL - MAKs: 2 mg/m³
- Bulgaria OEL - TWA: 2.0 mg/m³
- Czech Republic OEL - TWA: 1 mg/m³
- Estonia OEL - TWA: 1 mg/m³
- France OEL - TWA: 2 mg/m³
- Greece OEL - TWA: 2 mg/m³
- Hungary OEL - TWA: 2 mg/m³
- Japan - OELs - Ceilings: 2 mg/m³
- Latvia OEL - TWA: 0.5 mg/m³
- OSHA - Final PELS - TWAs: 2 mg/m³
- Poland OEL - TWA: 0.5 mg/m³
- Slovakia OEL - TWA: 2 mg/m³
- Slovenia OEL - TWA: 2 mg/m³
- Sweden OEL - TWAs: 1 mg/m³
- Switzerland OEL - TWAs: 2 mg/m³

The purpose of the Occupational Exposure Band (OEB) classification system is to separate substances into different Hazard categories when the available data are sufficient to do so, but inadequate to establish an Occupational Exposure Limit (OEL). The OEB given is based upon an analysis of all currently available data; as such, this value may be subject to revision when new information becomes available.

Pancuronium Bromide

- Pfizer Occupational Exposure Band (OEB): OEB 4 (control exposure to the range of 1μg/m³ to <10μg/m³)

SODIUM CHLORIDE

- Pfizer Occupational Exposure Band (OEB): OEB 1 (control exposure to the range of 1000μg/m³ to 3000μg/m³)

Sodium Acetate

- Pfizer Occupational Exposure Band (OEB): OEB 1 (control exposure to the range of 1000μg/m³ to 3000μg/m³)

Exposure Controls

- Engineering Controls: Engineering controls should be used as the primary means to control exposures. General room ventilation is adequate unless the process generates dust, mist or fumes. Keep airborne contamination levels below the exposure limits listed above in this section.
- Personal Protective Equipment: Refer to applicable national standards and regulations in the selection and use of personal protective equipment (PPE).

- Hands: Impervious disposable gloves (e.g. Nitrile, etc.) (double recommended) if skin contact with drug product is possible and for bulk processing operations. (Protective gloves must meet the standards in accordance with EN374, ASTM F1001 or international equivalent.)
- Eyes: Wear safety glasses or goggles if eye contact is possible. (Eye protection must meet the standards in accordance with EN166, ANSI Z87.1 or international equivalent.)
8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Skin: Impervious disposable protective clothing is recommended if skin contact with drug product is possible and for bulk processing operations. (Protective clothing must meet the standards in accordance with EN13982, ANSI 103 or international equivalent.)

Respiratory protection: Under normal conditions of use, if the applicable Occupational Exposure Limit (OEL) is exceeded, wear an appropriate respirator with a protection factor sufficient to control exposures to below the OEL (e.g. particulate respirator with a full mask, P3 filter). (Respirators must meet the standards in accordance with EN136, EN143, ASTM F2704-10 or international equivalent.)

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Physical State:</th>
<th>Liquid</th>
<th>Color:</th>
<th>Colourless</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor:</td>
<td>No data available</td>
<td>Odor Threshold:</td>
<td>No data available</td>
</tr>
<tr>
<td>Molecular Formula:</td>
<td>Mixture</td>
<td>Molecular Weight:</td>
<td>Mixture</td>
</tr>
</tbody>
</table>

Solvent Solubility: No data available
Water Solubility: Soluble
pH: 3.8-4.2
Melting/Freezing Point (°C): No data available
Boiling Point (°C): No data available
Partition Coefficient: (Method, pH, Endpoint, Value)

SODIUM CHLORIDE
No data available
Water for Injection
No data available
BENZYL ALCOHOL
No data available
Sodium Acetate
No data available
ACETIC ACID
No data available
SODIUM HYDROXIDE
No data available
Pancuronium Bromide
No data available
Decomposition Temperature (°C): No data available
Evaporation Rate (Gram/s): No data available
Vapor Pressure (kPa): No data available
Vapor Density (g/ml): No data available
Relative Density: No data available
Viscosity: No data available

Flammability:
Autoignition Temperature (Solid) (°C): No data available
Flammability (Solids): No data available
Flash Point (Liquid) (°C): No data available
Upper Explosive Limits (Liquid) (% by Vol.): No data available
Lower Explosive Limits (Liquid) (% by Vol.): No data available

10. STABILITY AND REACTIVITY

Reactivity: No data available
10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal conditions of use.
Possibility of Hazardous Reactions
Oxidizing Properties: None
Conditions to Avoid: None known
Incompatible Materials: None known
Hazardous Decomposition Products: Thermal decomposition products include oxides of nitrogen, carbon monoxide, carbon dioxide, and halogen containing gases.

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects
General Information: The information included in this section describes the potential hazards of the individual ingredients.
Known Clinical Effects: The most common adverse effects seen during clinical use of this drug include increase in blood pressure (hypertension), salivation, increased sweating, musculoskeletal system weakness, paralysis, respiratory arrest, troubled breathing. Serious allergic reactions, including anaphylaxis, have been reported.

Acute Toxicity: (Species, Route, End Point, Dose)

SODIUM CHLORIDE
- Rat Sub-tenon injection (eye) LC50/1hr > 42 g/m³
- Rat Oral LD 50 3g/kg
- Mouse Oral LD 50 4g/kg
- Rabbit Dermal LD 50 > 10g/kg

BENZYL ALCOHOL
- Rat Oral LD 50 1230 mg/kg
- Mouse Oral LD 50 1360mg/kg
- Rabbit Dermal LD 50 2g/kg

Sodium Acetate
- Rat Oral LD 50 3500 mg/kg
- Mouse Oral LD 50 4960mg/kg

ACETIC ACID
- Mouse Sub-tenon injection (eye) LC 50 5620 ppm/1H
- Rat Oral LD 50 3310mg/kg
- Rabbit Dermal LD 50 1060uL/kg

Pancuronium Bromide
- Rat Oral LD50 202 mg/kg
- Mouse Oral LD50 21.2mg/kg
- Rat Intravenous LD50 154ug/kg
- Mouse Intravenous LD50 13ug/kg

Irritation / Sensitization: (Study Type, Species, Severity)

SODIUM CHLORIDE
- Skin Irritation Rabbit Mild
- Eye Irritation Rabbit Mild
11. TOXICOLOGICAL INFORMATION

Reproduction & Development Toxicity: (Duration, Species, Route, Dose, End Point, Effect(s))

Pancuronium Bromide
Embryo / Fetal Development
- Rat, Injection: 1.6 times human dose, NOAEL, Not teratogenic
- Rabbit, Intramuscular: 0.2 times human dose, NOAEL, Not Teratogenic

Carcinogen Status: None of the components of this formulation are listed as a carcinogen by IARC, NTP or OSHA.

12. ECOLOGICAL INFORMATION

Environmental Overview: Environmental properties have not been thoroughly investigated. Releases to the environment should be avoided.

Toxicity:
Aquatic Toxicity: (Species, Method, End Point, Duration, Result)

**BENZYL ALCOHOL**
- Fathead Minnow NPDES LC-50 96 Hours 460 - 770 mg/L
- Bluegill NPDES LC-50 96 Hours 10 mg/L
- *Daphnia Magna* (Water Flea) Surrogate ErC50 48 Hours 23 - 400 mg/L

**ACETIC ACID**
- Fathead Minnow NPDES LC-50 96 Hours 88 mg/L
- Bluegill Sunfish NPDES LC-50 96 Hours 75 mg/L
- Goldfish NPDES LC-50 24 Hours 423 mg/L

Persistence and Degradability: No data available

Bio-accumulative Potential: No data available

Mobility in Soil: No data available

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods: Dispose of waste in accordance with all applicable laws and regulations. Member State specific and Community specific provisions must be considered. Considering the relevant known environmental and human health hazards of the material, review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental releases. This may include destructive techniques for waste and wastewater.

14. TRANSPORT INFORMATION

The following refers to all modes of transportation unless specified below.

Not regulated for transport under USDOT, EUADR, IATA, or IMDG regulations.
15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

Pancuronium Bromide
CERCLA/SARA 313 Emission reporting Not Listed
California Proposition 65 Not Listed
EU EINECS/ELINCS List 239-532-5

ACETIC ACID
CERCLA/SARA 313 Emission reporting Not Listed
CERCLA/SARA Hazardous Substances and their Reportable Quantities:
California Proposition 65 Not Listed
Inventory - United States TSCA - Sect. 8(b) Present
Australia (AICS): Present
Standard for the Uniform Scheduling for Drugs and Poisons:
EU EINECS/ELINCS List 200-580-7

BENZYL ALCOHOL
CERCLA/SARA 313 Emission reporting Not Listed
California Proposition 65 Not Listed
Inventory - United States TSCA - Sect. 8(b) Present
Australia (AICS): Present
EU EINECS/ELINCS List 202-859-9

SODIUM CHLORIDE
CERCLA/SARA 313 Emission reporting Not Listed
California Proposition 65 Not Listed
Inventory - United States TSCA - Sect. 8(b) Present
Australia (AICS): Present
EU EINECS/ELINCS List 231-598-3

Sodium Acetate
CERCLA/SARA 313 Emission reporting Not Listed
California Proposition 65 Not Listed
Inventory - United States TSCA - Sect. 8(b) Present
Australia (AICS): Present
EU EINECS/ELINCS List 204-823-8
15. REGULATORY INFORMATION

SODIUM HYDROXIDE

CERCLA/SARA 313 Emission reporting: Not Listed
CERCLA/SARA Hazardous Substances and their Reportable Quantities:
California Proposition 65: Not Listed
Inventory - United States TSCA - Sect. 8(b): Present
Australia (AICS): Present
Standard for the Uniform Scheduling for Drugs and Poisons: Schedule 5
EU EINECS/ELINCS List: 215-185-5

Water for Injection

CERCLA/SARA 313 Emission reporting: Not Listed
California Proposition 65: Not Listed
Inventory - United States TSCA - Sect. 8(b): Present
Australia (AICS): Present
REACH - Annex IV - Exemptions from the obligations of Register: Present
EU EINECS/ELINCS List: 231-791-2

16. OTHER INFORMATION

Text of CLP/GHS Classification abbreviations mentioned in Section 3

Flammable liquids-Cat.3; H226 - Flammable liquid and vapor
Acute toxicity, oral-Cat.3; H301 - Toxic if swallowed
Acute toxicity, oral-Cat.4; H302 - Harmful if swallowed
Skin corrosion/irritation-Cat.1A; H314 - Causes severe skin burns and eye damage
Acute toxicity, inhalation-Cat.4; H332 - Harmful if inhaled

Data Sources: Pfizer proprietary drug development information. Publicly available toxicity information.
Revision date: 08-Aug-2018
Prepared by: Product Stewardship Hazard Communication

Pfizer Inc believes that the information contained in this Material Safety Data Sheet is accurate, and while it is provided in good faith, it is without warranty of any kind, expressed or implied. If data for a hazard are not included in this document there is no known information at this time.

End of Safety Data Sheet