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

Material Name: Lignocaine Hydrochloride Solution for Injection

<table>
<thead>
<tr>
<th>Trade Name:</th>
<th>Lignocaine Injection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synonyms:</td>
<td>Lidocaine</td>
</tr>
<tr>
<td>Chemical Family:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Intended Use:</td>
<td>Pharmaceutical product used as anesthetic agent, heart rhythm control (anti-arrhythmic)</td>
</tr>
</tbody>
</table>

2. HAZARDS IDENTIFICATION

Appearance: Clear, colorless solution

Statement of Hazard: Non-hazardous in accordance with international standards for workplace safety.

Additional Hazard Information:

- **Short Term:** Harmful if swallowed. May cause mild eye irritation. May cause slight skin irritation. (based on components). Drugs of this class have been associated with rare, but potentially serious cardiac events. These events have not been observed from occupational exposures, however, those with preexisting cardiovascular illnesses may be at increased risk from exposure.

- **Known Clinical Effects:** Adverse effects associated with the therapeutic use include dizziness, nervousness, agitation, drowsiness, apprehension, euphoria, blurred/double vision, slurred speech, tremors, convulsions, and seizure. Respiratory depression and arrest may follow. Other, more serious effects seen with IV use of this drug, particularly when it is administered rapidly, are cardiovascular collapse, central nervous system depression, and/or hypotension.

EU Indication of danger: Not classified


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 for exposure in your workplace.
4. FIRST AID MEASURES

Eye Contact: Flush with water while holding eyelids open for at least 15 minutes. Seek medical attention immediately.

Skin Contact: Remove contaminated clothing. Flush area with large amounts of water. Use soap. Seek medical attention.

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.

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.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Use carbon dioxide, dry chemical, or water spray.

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

Fire Fighting Procedures: During all fire fighting activities, wear appropriate protective equipment, including self-contained breathing apparatus.

Fire / Explosion Hazards: Not applicable

6. ACCIDENTAL RELEASE MEASURES

Health and Safety Precautions: Personnel involved in clean-up should wear appropriate personal protective equipment (see Section 8). Minimize exposure.

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.

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

Additional Consideration for Large Spills: Contain the source of the spill or leak if it is safe to do so. Collect spill with a non-combustible absorbent material and transfer to labeled container for disposal.
7. HANDLING AND STORAGE

General Handling: Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. When handling, use appropriate personal protective equipment (see Section 8).

Storage Conditions: Store out of direct sunlight in a cool, well ventilated, dry area.

Storage Temperature: Store below 25°C

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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

Sodium chloride

Latvia OEL - TWA = 5 mg/m³ TWA
Lithuania OEL - TWA = 5 mg/m³ IPRV

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.

Lidocaine Hydrochloride

Pfizer Occupational Exposure Band (OEB): OEB2 (control exposure to the range of >100ug/m³ to < 1000ug/m³)

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:

Hands: Impervious gloves are recommended if skin contact with drug product is possible and for bulk processing operations.

Eyes: Wear safety glasses or goggles if eye contact is possible.

Skin: Impervious protective clothing is recommended if skin contact with drug product is possible and for bulk processing operations.

Respiratory protection: Whenever excessive air contamination (dust, mist, vapor) is generated, respiratory protection, with appropriate protection factors, should be used to minimize exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Physical State: Solution
Molecular Formula: Mixture
Color: Clear, colorless
Molecular Weight: Mixture

pH: 5-7

10. STABILITY AND REACTIVITY

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**11. TOXICOLOGICAL INFORMATION**

**General Information:** There are no data for this formulation. The information included in this section describes the potential hazards of the individual ingredients.

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

<table>
<thead>
<tr>
<th>Substance</th>
<th>Species</th>
<th>Route</th>
<th>End Point</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lidocaine Hydrochloride</td>
<td>Rat</td>
<td>Oral</td>
<td>LD50</td>
<td>317 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Rat</td>
<td>Intravenous</td>
<td>LD50</td>
<td>25 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Rat</td>
<td>Intraperitoneal</td>
<td>LD50</td>
<td>133 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Mouse</td>
<td>Oral</td>
<td>LD50</td>
<td>292 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Mouse</td>
<td>Intravenous</td>
<td>LD50</td>
<td>19.5 mg/kg</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>Rat</td>
<td>Oral</td>
<td>LD50</td>
<td>3000 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Mouse</td>
<td>Oral</td>
<td>LD50</td>
<td>4000 mg/kg</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Substance</th>
<th>Study Type</th>
<th>Species</th>
<th>Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lidocaine Hydrochloride</td>
<td>Eye Irritation</td>
<td>Rabbit</td>
<td>Mild</td>
</tr>
<tr>
<td></td>
<td>Skin Irritation</td>
<td>Rabbit</td>
<td>Mild</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>Eye Irritation</td>
<td>Rabbit</td>
<td>Moderate</td>
</tr>
<tr>
<td></td>
<td>Skin Irritation</td>
<td>Rabbit</td>
<td>Mild</td>
</tr>
</tbody>
</table>

**Repeated Dose Toxicity: (Duration, Species, Route, Dose, End Point, Target Organ)**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Duration</th>
<th>Species</th>
<th>Route</th>
<th>Dose</th>
<th>End Point</th>
<th>Target Organ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride</td>
<td>10 Day(s)</td>
<td>Rat</td>
<td>Oral</td>
<td>12500 mg/kg</td>
<td>LOAEL</td>
<td>Kidney, Ureter, Bladder</td>
</tr>
</tbody>
</table>

**Reproduction & Developmental Toxicity: (Study Type, Species, Route, Dose, End Point, Effect(s))**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Study Type</th>
<th>Species</th>
<th>Route</th>
<th>Dose</th>
<th>Effect(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lidocaine Hydrochloride</td>
<td>Embryo / Fetal Development</td>
<td>Rat</td>
<td>Subcutaneous</td>
<td>30 mg/kg</td>
<td>NOAEL Not teratogenic</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Intraperitoneal</td>
<td>56 mg/kg</td>
<td>NOAEL Not Teratogenic</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Intraperitoneal</td>
<td>72 mg/kg/day</td>
<td>NOAEL Not Teratogenic</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Intravenous</td>
<td>500 mg/kg/day</td>
<td>LOAEL Fetotoxicity</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Intraperitoneal</td>
<td>6 mg/kg</td>
<td>LOAEL Developmental toxicity</td>
</tr>
</tbody>
</table>

**Genetic Toxicity: (Study Type, Cell Type/Organism, Result)**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Study Type</th>
<th>Cell Type/Organism</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bacterial Mutagenicity (Ames)</td>
<td>Salmonella , E. coli</td>
<td>Negative</td>
<td></td>
</tr>
<tr>
<td>In Vitro Chromosome Aberration</td>
<td>Human Lymphocytes</td>
<td>Negative</td>
<td></td>
</tr>
<tr>
<td>In Vivo Micronucleus</td>
<td>Mouse</td>
<td>Negative</td>
<td></td>
</tr>
</tbody>
</table>

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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.

13. DISPOSAL CONSIDERATIONS

Disposal Procedures: Dispose of waste in accordance with all applicable laws and regulations. Member State specific and Community specific provisions must be considered.

14. TRANSPORT INFORMATION

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

15. REGULATORY INFORMATION

EU Indication of danger: Not classified

OSHA Label: Non-hazardous in accordance with international standards for workplace safety.

Canada - WHMIS: Classifications

WHMIS hazard class:
Class D, Division 1, Subdivision B

Water for injection
Inventory - United States TSCA - Sect. 8(b) Present
Australia (AICS): Present

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16. OTHER INFORMATION

Text of R phrases mentioned in Section 3

R22 - Harmful if swallowed.

Data Sources:
Publicly available toxicity information. Pfizer proprietary drug development information. Safety data sheets for individual ingredients.

Reasons for Revision:
Updated Section 2 - Hazard Identification. Updated Section 3 - Composition / Information on Ingredients. Updated Section 4 - First Aid Measures. Updated Section 7 - Handling and Storage. Updated Section 8 - Exposure Controls / Personal Protection. Updated Section 15 - Regulatory Information.

Prepared by:
Toxicology and Hazard Communication
Pfizer Global Environment, Health, and Safety

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

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