MATERIAL SAFETY DATA SHEET

BAXTER

CHIROCAINE(R*) (LEVOBUPIVACAINE INJECTION) IN 0.9% SODIUM CHLORIDE INJECTION

MSDS NO.: 1080025

---1. PRODUCT AND COMPANY IDENTIFICATION ---

PRODUCT TRADE NAME:
CHIROCAINE(R*) (LEVOBUPIVACAINE INJECTION) IN 0.9% SODIUM CHLORIDE INJECTION

SYNONYMS: LEVOBUPIVACAINE INJECTION
(S)-BUPIVACAINE HYDROCHLORIDE

CHEMICAL FAMILY: AMINO AMIDE

VALIDATION DATE: 30 NOVEMBER 2000

PRODUCT CODE: 2J1443, 2J1444

INTERNAL CODE: NOT AVAILABLE.

PACKAGING:
CONTAINER INFORMATION: PREMIX SOLUTION IN 100 ML AND 200 ML INTRAVIA(R*) CONTAINER.

PRODUCT TYPE: REGULATED PRESCRIPTION DRUG
PRODUCT USE: LOCAL ANESTHETICS.

MANUFACTURED/SUPPLIED:
BAXTER HEALTHCARE CORPORATION
DEERFIELD, ILLINOIS 60015
(800) 422-9837 OR (847) 948-4770

IN CASE OF EMERGENCY:
PROSAR: USA (888) 990-0996 OUTSIDE USA (615) 917-6114
CHEMTREC: USA (800) 424-9300 OUTSIDE USA (743) 741-6089

2. COMPOSITION AND INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>CONC. (%)</th>
<th>CAS NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) LEVOBUPIVACAINE HCl</td>
<td>0.05-0.15</td>
<td>27262-48-2</td>
</tr>
<tr>
<td>2) SODIUM CHLORIDE</td>
<td>&lt;1</td>
<td>7647-14-5</td>
</tr>
<tr>
<td>3) WATER</td>
<td>&gt;98</td>
<td>7732-18-5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>U.N. NO.</th>
<th>EU SYMBOL</th>
<th>R-PHRASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) LEVOBUPIVACAINE HCl</td>
<td>NOT APPLICABLE</td>
<td>NOT CONTROLLED</td>
<td>NOT CONTROLLED UNDER DSD (EUROPE)</td>
</tr>
<tr>
<td>2) SODIUM CHLORIDE</td>
<td>NOT APPLICABLE</td>
<td>Xi</td>
<td>R36/37</td>
</tr>
<tr>
<td>3) WATER</td>
<td>NOT APPLICABLE</td>
<td>NOT CONTROLLED</td>
<td>NOT CONTROLLED UNDER DSD (EUROPE).</td>
</tr>
</tbody>
</table>

NOTE:
SEE SECTION 8 FOR OCCUPATIONAL EXPOSURE LIMITS AND SECTION 11 FOR LC50/LD50 INFORMATION.

3. HAZARDS IDENTIFICATION

PRIMARY HAZARDS AND CRITICAL EFFECTS:
CAUTION!
MAY BE HARMFUL IF SWALLOWED. DO NOT INGEST. WASH THOROUGHLY AFTER HANDLING.

4. FIRST AID MEASURES

INHALATION:
IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. GET MEDICAL ATTENTION IF SYMPTOMS APPEAR.

INGESTION:
DO NOT INDUCE VOMITING UNLESS DIRECTED TO DO SO BY MEDICAL PERSONNEL. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. IF LARGE QUANTITIES OF THIS MATERIAL ARE SWALLOWED, CALL A PHYSICIAN IMMEDIATELY.
SKIN CONTACT:
WASH WITH SOAP AND WATER. GET MEDICAL ATTENTION IF IRRITATION DEVELOPS.

EYE CONTACT:
IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. GET MEDICAL ATTENTION.

NOTES TO MEDICAL DOCTOR:
SEE PATIENT PACKAGE INSERT IN SHIPPING CARTON FOR COMPLETE INFORMATION.

-----5. FIRE-FIGHTING MEASURES-----

EXTINGUISHING MEDIA:
USE FOAM OR ALL PURPOSE DRY CHEMICALS TO EXTINGUISH.

FIRE-FIGHTING PROCEDURES:
FIRE FIGHTERS SHOULD WEAR POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS (SCBA) AND FULL TURNOUT GEAR.

FIRE/EXPLOSION HAZARDS: NOT APPLICABLE.

HAZARDOUS DECOMPOSITION PRODUCTS: NOT APPLICABLE.

-----6. ACCIDENTAL RELEASE MEASURES-----

PERSONAL PRECAUTIONS:
IMMEDIATELY CONTACT EMERGENCY PERSONNEL. KEEP UNNECESSARY PERSONNEL AWAY. USE SUITABLE PROTECTIVE EQUIPMENT (SECTION 8). FOLLOW ALL FIRE FIGHTING PROCEDURES (SECTION 5).

ENVIRONMENTAL PRECAUTIONS AND CLEAN-UP METHODS:
IF EMERGENCY PERSONNEL ARE UNAVAILABLE, CONTAIN SPILLED MATERIAL. FOR SMALL SPILLS ADD ABSORBENT (SOIL MAY BE USED IN THE ABSENCE OF OTHER SUITABLE MATERIALS) SCOOP UP MATERIAL AND PLACE IN A SEALED, LIQUID-PROOF CONTAINER FOR DISPOSAL. FOR LARGE SPILLS DIKE SPILLED MATERIAL OR OTHERWISE CONTAIN MATERIAL TO ENSURE RUNOFF DOES NOT REACH A WATERWAY. PLACE SPILLED MATERIAL IN AN APPROPRIATE CONTAINER FOR DISPOSAL. MINIMIZE CONTACT OF SPILLED MATERIAL WITH SOILS TO PREVENT RUNOFF TO SURFACE WATERWAYS.

NOTE:
SEE SECTION 1 FOR EMERGENCY CONTACT INFORMATION AND SECTION 13 FOR WASTE DISPOSAL.

-----7. HANDLING AND STORAGE-----

HANDLING:
AVOID CONTACT WITH EYES. WASH THOROUGHLY AFTER HANDLING.

STORAGE:
KEEP CONTAINER TIGHTLY CLOSED. KEEP CONTAINER IN A COOL, WELL-VENTILATED AREA. STORE AT ROOM TEMPERATURE. (25 DEG. C/77 DEG. F). PROTECT FROM FREEZING. AVOID EXCESSIVE HEAT.

PACKAGING MATERIALS: USE ORIGINAL CONTAINER.
8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS:

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>OEL UNITED STATES</th>
<th>OEL CANADA</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEVOBUPIVAINE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HCI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWA: 1 (MG/M3)</td>
<td>FROM CIA (CHEMICAL INDUSTRIES ASSOCIATION) GUIDELINES (UNITED STATES) (1994)</td>
<td>NOT AVAILABLE</td>
</tr>
</tbody>
</table>

ENGINEERING CONTROLS:
NO SPECIAL CONTAINMENT IS REQUIRED. LOCAL EXHAUST VENTILATION SHOULD BE PROVIDED.

MONITORING METHODS AND REFERENCES: NOT AVAILABLE

PERSONAL PROTECTIVE EQUIPMENT:

RESPIRATORY SYSTEM:
USE APPROPRIATE RESPIRATORY PROTECTION IF THERE IS THE POTENTIAL TO EXCEED THE EXPOSURE LIMIT(S). PERFORM EXPOSURE MONITORING FOR THIS PRODUCT AND ITS COMPONENTS TO ENSURE THAT EMPLOYEES ARE NOT EXPOSED TO LEVELS GREATER THAN APPLICABLE REGULATORY LIMITS. IF EXPOSURE LEVELS EXCEED REGULATORY LIMITS, IMPLEMENT A RESPIRATORY PROTECTION PROGRAM INCLUDING RESPIRATORY PROTECTION THAT IS IN COMPLIANCE WITH OSHA 29 CFR 1910.134 (IN THE US) OR EQUIVALENT REGULATION IN OTHER REGIONS. FIRE FIGHTING REQUIRES THE USE OF A SELF-CONTAINED BREATHING APPARATUS WITH FULL FACE PIECE AND POSITIVE PRESSURE MODE.

SKIN AND BODY:
WORK UNIFORM OR LABORATORY COAT.

HANDS:
USE CHEMICAL RESISTANT, IMPERVIOUS GLOVES.

EYES:
SAFETY GLASSES. GOGGLES, FACE SHIELD, OR OTHER FULL-FACE PROTECTION IF POTENTIAL EXISTS FOR DIRECT EXPOSURE TO AEROSOLS OR SPLASHES.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE AND APPEARANCE: LIQUID.
COLOR: CLEAR COLORLESS.
ODOR: NOT AVAILABLE
PH: 3.8 TO 6.5
MOLECULAR WEIGHT: NOT APPLICABLE.
MOLECULAR FORMULA: NOT APPLICABLE.
MELTING POINT:
MAY START TO SOLIDIFY AT 0 DEG. C (32 DEG. F) BASED ON DATA FOR: WATER.
BOILING POINT: THE LOWEST KNOWN VALUE IS 100 DEG. C (212 DEG. F) (WATER).
EVAPORATION RATE: 0.36 (WATER) COMPARED TO (n-BUTYL ACETATE=1)

VOLATILITY: NOT AVAILABLE.
VAPOR DENSITY: NOT AVAILABLE.
VAPOR PRESSURE: NOT AVAILABLE.
DENSITY: THE ONLY KNOWN VALUE IS 1 G/CM³ (WATER).
SPECIFIC GRAVITY: 1.01 (WATER = 1).

SOLUBILITY:
EASILY SOLUBLE IN COLD WATER, HOT WATER.
VERY SLIGHTLY SOLUBLE IN ACETONE.

PARTITION COEFFICIENT (LOG KOW): NOT AVAILABLE.

VISCOSITY: NOT AVAILABLE.
AUTO-IGNITION TEMPERATURE: NOT APPLICABLE.
FLASH POINT: NOT APPLICABLE
EXPLOSIBILITY: NOT AVAILABLE.
EXPLOSION LIMITS: NOT APPLICABLE

------10. STABILITY AND REACTIVITY ------

STABILITY: THE PRODUCT IS STABLE.
CONDITIONS OF INSTABILITY: NOT AVAILABLE.
CONDITIONS AND MATERIALS TO AVOID: DISINFECTING AGENTS CONTAINING HEAVY METALS.
HAZARDOUS DECOMPOSITION PRODUCTS: NOT APPLICABLE.

------11. TOXICOLOGICAL INFORMATION ------

TOXICITY DATA

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>TEST</th>
<th>RESULT</th>
<th>ROUTE</th>
<th>SPECIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) LEVOBUPIVACAINE HCl</td>
<td>LD50,</td>
<td>18 MG/KG</td>
<td>ORAL</td>
<td>RABBIT</td>
</tr>
</tbody>
</table>

ROUTES OF ENTRY: ABSORBED THROUGH SKIN. EYE CONTACT. INGESTION.

ACUTE EFFECTS:

INHALATION: SLIGHTLY IRRITATING TO THE RESPIRATORY SYSTEM.
INGESTION: HARMFUL IF SWALLOWED.
SKIN CONTACT: MAY CAUSE MILD IRRITATION WITH DIRECT CONTACT.
EYE CONTACT: MAY CAUSE MILD IRRITATION WITH DIRECT CONTACT.
SPECIAL REMARKS ON TOXICITY TO ANIMALS:
LD50, INTRAVENOUS, RAT 7.2 MG/KG (LEVOBUPIVACAINE HCl)

CHRONIC EFFECTS:

ADVERSE EFFECTS:
FDA CLASS B.

TARGET ORGANS:
NOT AVAILABLE.

CARCINOGENIC EFFECTS:
NOT CLASSIFIED OR LISTED BY IARC, NTP, OSHA, EU AND ACGIH. NO LONG TERM STUDIES IN ANIMALS TO EVALUATE CARCINOGENIC POTENTIAL HAVE BEEN CONDUCTED.

MUTAGENIC EFFECTS:
NOT MUTAGENIC IN A STANDARD BATTERY OF GENETIC TOXICOLOGICAL TESTS, INCLUDING BACTERIAL MUTATION ASSAY, MOUSE LYMPHOMA CELLS MUTATION ASSAY, CHROMOSOME ABERRATION IN HUMAN BLOOD LYMPHOCYTES, AND MICRONUCLEI IN BONE MARROW OF TREATED MICE.

DEVELOPMENTAL AND TERATOGENIC EFFECTS:
TERATOGENIC EFFECTS:
NO TERATOGENIC OR FETOTOXIC EFFECTS WERE FOUND AT ALL DOSE LEVELS TESTED. NO ADVERSE EFFECTS WERE SEEN IN RATS DOSED AT 180 MG/M^2/DAY AND RABBITS DOSED AT 220 MG/M^2/DAY. DOSES USED WERE APPROXIMATELY ONE-HALF THE MAXIMUM RECOMMENDED HUMAN DOSE (570 MG/PERSON) BASED UPON BODY SURFACE AREA.

REPRODUCTIVE EFFECTS:
NO REPRODUCTIVE EFFECTS WERE FOUND AT ALL DOSES TESTED. NO EFFECTS ON FERTILITY OR GENERAL REPRODUCTIVE PERFORMANCE OVER TWO GENERATIONS WERE SEEN IN RATS ADMINISTERED 30 MG/KG/DAY.

OTHER TOXIC EFFECTS ON HUMANS:
OVER EXPOSURE MAY CAUSE:
HEADACHE, NAUSEA, VOMITING, CONSTIPATION, DIZZINESS, LOW BLOOD PRESSURE, ANEMIA, CENTRAL NERVOUS SYSTEM DEPRESSION, AND CARDIO-RESPIRATORY ARREST.

-----12. ECOLOGICAL INFORMATION -----

ECOTOXICITY DATA:

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>SPECIES</th>
<th>PERIOD</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) LEVOBUPIVACAINE HCl</td>
<td>NOT AVAILABLE.</td>
<td>NOT AVAILABLE.</td>
<td>NOT AVAILABLE.</td>
</tr>
</tbody>
</table>

ENVIRONMENTAL HAZARDS:
NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

ENVIRONMENTAL FATE: NOT AVAILABLE.

-----13. DISPOSAL CONSIDERATION -----

WASTE CLASSIFICATION: NOT REGULATED.
WASTE HANDLING AND DISPOSAL:
WASTE MUST BE DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL ENVIRONMENTAL CONTROL REGULATIONS.

-----14. TRANSPORT INFORMATION -----  

UNITED STATES:
SHIPPING DESCRIPTION:  NOT REGULATED.
PACKAGING INSTRUCTION:  NOT AVAILABLE.
SPECIAL PROVISIONS:  NOT AVAILABLE.
REMARKS:  NOT APPLICABLE.

CANADA:
SHIPPING DESCRIPTION:  NOT REGULATED.
REGULATED LIMIT:  NOT AVAILABLE.
CONSUMER COMMODITY:  NOT AVAILABLE.
LIMITED QUANTITY:  NOT AVAILABLE.
SPECIAL PROVISIONS:  NOT AVAILABLE.
REMARKS:  NOT APPLICABLE.

SEA:
SHIPPING DESCRIPTION:  NOT REGULATED.
IMDG PAGE NUMBER:  NOT AVAILABLE.
MEDICAL FIRST AID GUIDE:  NOT AVAILABLE.
EMERGENCY SCHEDULES:  NOT AVAILABLE.
REPORTABLE QUANTITY:  NOT AVAILABLE.
MARINE POLLUTANT:  NOT AVAILABLE.
IMDG CLASS:  NOT AVAILABLE.
PACKAGING INSTRUCTION:  NOT AVAILABLE.

AIR:
SHIPPING DESCRIPTION:  NOT REGULATED.
IATA CLASS:  NOT AVAILABLE.
PACKAGING INSTRUCTION:  NOT AVAILABLE.

-----15. REGULATORY INFORMATION ----- 

US REGULATIONS:
HAZ-COM STANDARD:
NOT CONTROLLED UNDER THE HCS (UNITED STATES)

EPA:
TSCA 8(B) INVENTORY: SODIUM CHLORIDE; WATER
STATE: NOT REGULATED.

CANADIAN REGULATIONS:
WHMIS: NOT CONTROLLED UNDER WHMIS (CANADA).
CEPA: CEPA DSL: SODIUM CHLORIDE; WATER
PROVINCIAL: NO PRODUCTS WERE FOUND.

-----16. OTHER INFORMATION -----

REMARKS: NOT AVAILABLE.
REFERENCES: NOT AVAILABLE.
VERSION: 1.0
DATE OF PREVIOUS ISSUE: NO PREVIOUS VALIDATION.
| INDICATES INFORMATION THAT HAS CHANGED FROM PREVIOUSLY ISSUED VERSION.

NOTICE TO READER:
TO THE BEST OF OUR KNOWLEDGE, THE INFORMATION CONTAINED HEREBIN 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 HEREBIN.

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.