Liquid Bicarbonate Concentrate
Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Date of issue: 03/02/2017 Revision date: 03/02/2017 Version : 1.0

SECTION 1: Identification

1.1. Identification
Product name : Liquid Bicarbonate Concentrate
Product code : BC-1-L RENASOL™ Liquid Bicarbonate
MB-330-L CENTRISOL™ Liquid Bicarbonate

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture : Concentrate formulation to be used in conjunction with acid concentrate in a compatible artificial kidney (hemodialysis) machine.

1.3. Details of the supplier of the safety data sheet
Medivators Inc.
14605 28th Avenue North
Minneapolis, MN 55447 - USA
T 1-800-328-3340

1.4. Emergency telephone number
Emergency number : CHEMTREC International (703)-527-3887

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture
Classification according to Regulation (EC) No. 1272/2008 [CLP]
Not classified

2.2. Label elements
Labelling according to Regulation (EC) No. 1272/2008 [CLP]
No labelling applicable

2.3. Other hazards
No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures
No additional information available.

SECTION 4: First aid measures

4.1. Description of first aid measures
First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
First-aid measures after skin contact : If irritation occurs, flush skin with plenty of water. Get medical attention if irritation persists.
First-aid measures after eye contact : In case of contact, immediately flush eyes with plenty of water. Remove contact lenses, if worn. If irritation persists, get medical attention.
First-aid measures after ingestion : If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms/injuries after inhalation : Non-hazardous. May cause respiratory tract irritation.
Symptoms/injuries after skin contact : May cause skin irritation to broken or abraded skin. Symptoms may include redness, drying, defatting and cracking of the skin.
Symptoms/injuries after eye contact : Non-irritating.
Symptoms/injuries after ingestion : Non-hazardous. May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

4.3. Indication of any immediate medical attention and special treatment needed
Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).
SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media : Treat for surrounding material.
Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture
Fire hazard : Does not support combustion.
Reactivity : No dangerous reaction known under conditions of normal use.

5.3. Advice for firefighters
Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6.1.1. For non-emergency personnel
No additional information available

6.1.2. For emergency responders
No additional information available

6.2. Environmental precautions
No additional information available

6.3. Methods and material for containment and cleaning up
For containment : Keep container closed when not in use. Store in dry area. Store unused product in original closed container. Once the product has been removed, do not return to the original container.
Methods for cleaning up : Contain the spill. If allowed by federal, state, or local regulatory authority, flush spill to the sewer. Do not reuse the liquid material.

6.4. Reference to other sections
See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling : Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke.
Hygiene measures : Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions : Keep out of the reach of children. Keep container tightly closed. Store in a dry, cool and well-ventilated place.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
No additional information available

8.2. Exposure controls
Appropriate engineering controls : Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.
Hand protection : None necessary under normal conditions of use. Wear gloves if handling large quantities.
Eye protection : Safety glasses or goggles are recommended when using product.
Skin and body protection : Wear suitable protective clothing.
Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Environmental exposure controls : Maintain levels below Community environmental protection thresholds.
Other information : Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.
SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear</td>
</tr>
<tr>
<td>Colour</td>
<td>Clear</td>
</tr>
<tr>
<td>Odour</td>
<td>None</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>7.0-8.3</td>
</tr>
<tr>
<td>Melting point</td>
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</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Non flammable.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.1</td>
</tr>
<tr>
<td>Solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
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<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limits</td>
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<tr>
<td>Explosive properties</td>
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</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under normal storage conditions.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Heat. Incompatible materials.

10.5. Incompatible materials

Oxidizing agents.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon and oxides of nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity: Not classified.

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid Bicarbonate Concentrate</td>
<td>No data available</td>
</tr>
<tr>
<td>LD50 oral rat</td>
<td>No data available</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>No data available</td>
</tr>
<tr>
<td>LC50 inhalation rat</td>
<td>No data available</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: Based on available data, the classification criteria are not met.
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Serious eye damage/irritation: Based on available data, the classification criteria are not met
Respiratory or skin sensitisation: Based on available data, the classification criteria are not met
Germ cell mutagenicity: Based on available data, the classification criteria are not met
Carcinogenicity: Based on available data, the classification criteria are not met
Reproductive toxicity: Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure): Based on available data, the classification criteria are not met
Specific target organ toxicity (repeated exposure): Based on available data, the classification criteria are not met
Aspiration hazard: Based on available data, the classification criteria are not met

SECTION 12: Ecological information

12.1. Toxicity
Ecology - general: May cause long-term adverse effects in the aquatic environment.

12.2. Persistence and degradability
Liquid Bicarbonate Concentrate
Persistence and degradability: Not established.

12.3. Bioaccumulative potential
Liquid Bicarbonate Concentrate
Bioaccumulative potential: Not established.

12.4. Mobility in soil
No additional information available.

12.5. Other adverse effects
Effect on the global warming: No known effects from this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Waste disposal recommendations: This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

SECTION 14: Transport information
In accordance with ADR.

14.1. UN number
Not regulated for transport.

14.2. UN proper shipping name
Not applicable.

14.3. Transport hazard class(es)
Danger labels (ADR): Not applicable.

14.4. Packing group
Not applicable.

14.5. Environmental hazards
Dangerous for the environment: No.
Marine pollutant: No.
Other information: No supplementary information available.

14.6. Special precautions for user
Special transport precautions: Do not handle until all safety precautions have been read and understood.

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

SECTION 15: Regulatory information
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations
Contains no REACH substances with Annex XVII restrictions.
Contains no REACH candidate substance.
Contains no REACH Annex XIV substances.

15.1.2. National regulations
No additional information available.

15.2. Chemical safety assessment
No chemical safety assessment has been carried out.

SECTION 16: Other information

Date of issue : 03/02/2017
Revision date : 03/02/2017
Other information : None.

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