1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: SODIUM L-LACTATE

Other name(s): L-Sodium Lactate; Sodium L Lactate; Purasal S; Sodium Lactate 60% (Purasal S/HQ 60)

Recommended Use of the Chemical and Restrictions on Use
Food applications.

Supplier: Ixom Operations Pty Ltd (Bronson & Jacobs division) - incorporated in Australia
ABN: 51 600 546 512
Street Address: 70 Marple Avenue Villawood NSW 2163 Australia

Telephone Number: +61 2 8717 2929
Facsimile: +61 2 9755 9611
Emergency Telephone: 1 800 033 111 (ALL HOURS)

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the “Other Information” section at the end of this Data Sheet.

2. HAZARDS IDENTIFICATION

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

Based on available information, not classified as hazardous according to Safe Work Australia; NON-HAZARDOUS SUBSTANCE.

Poisons Schedule (SUSMP): None allocated.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS Number</th>
<th>Proportion</th>
<th>Hazard Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium (S)-lactate</td>
<td>867-56-1</td>
<td>~60%</td>
<td>-</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>~40%</td>
<td>-</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor.

Inhalation:
Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.
Skin Contact:
If skin or hair contact occurs, remove contaminated clothing and wash skin and hair with soap and water. If irritation occurs seek medical advice.

Eye Contact:
If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre or a doctor, or for at least 15 minutes.

Ingestion:
Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Seek medical advice.

Indication of immediate medical attention and special treatment needed:
Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:
Fine water spray, normal foam, dry agent (carbon dioxide, dry chemical powder).

Unsuitable Extinguishing Media:
Solid water jet/stream may scatter and spread the fire.

Specific hazards arising from the substance or mixture:
Not combustible, however following evaporation of the water component of the material, the residual material can burn if ignited. On burning will emit toxic fumes, including those of oxides of carbon.

Special protective equipment and precautions for fire-fighters:
Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion. Keep containers cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures/Environmental precautions:
Clear area of all unprotected personnel. If contamination of sewers or waterways has occurred advise local emergency services.

Personal precautions/Protective equipment/Methods and materials for containment and cleaning up:
Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contact and breathing in vapours. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. Wash area down with excess water.

7. HANDLING AND STORAGE

Precautions for safe handling:
Avoid skin and eye contact and breathing in vapour, mists and aerosols.

Conditions for safe storage, including any incompatibilities:
Store in a cool, dry, well ventilated place and out of direct sunlight. Store away from sources of heat or ignition. Keep containers closed when not in use - check regularly for leaks.
8. EXPOSURE CONTROLS/PERSOAL PROTECTION

Control Parameters: No value assigned for this specific material by Safe Work Australia.

Appropriate engineering controls:
Use in well ventilated areas. If inhalation risk exists: Use with local exhaust ventilation or while wearing organic vapour/particulate respirator. Keep containers closed when not in use.

Individual protection measures, such as Personal Protective Equipment (PPE):
The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES.

Wear overalls, safety glasses and impervious gloves. If determined by a risk assessment an inhalation risk exists, wear an organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid
Colour: Light Yellow
Odour: Slight or Odourless
Odour Threshold: Not available
Solubility: Soluble in water.
Specific Gravity: Density: 1.32 - 1.34 @ 20°C (60% solution)
Relative Vapour Density (air=1): Not available
Vapour Pressure (20 °C): Not available
Flash Point (°C): Not applicable
Flammability Limits (%): Not applicable
Autoignition Temperature (°C): Not applicable
Melting Point/Range (°C): Not available
Boiling Point/Range (°C): 105 (50% solution); 110 (60% solution)
Decomposition Point (°C): >200
pH: 6.5 - 8.5 (10 - 60% aqueous solution) @ 25°C
Viscosity: 80 - 160 mPa.s @ 20°C
Partition Coefficient: log Pow = <-1.52 @ 20°C (for sodium (s)-lactate)

10. STABILITY AND REACTIVITY

Reactivity: No information available.
Safety Data Sheet

Chemical stability: Stable under normal conditions of use.
Possibility of hazardous reactions: Hazardous polymerisation will not occur.
Conditions to avoid: Avoid temperatures above 200 °C.
Incompatible materials: None known.
Hazardous decomposition products: Oxides of carbon.

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Ingestion: No adverse effects expected, however, large amounts may cause nausea and vomiting.

Eye contact: May be an eye irritant.

Skin contact: Contact with skin may result in irritation.

Inhalation: Breathing in vapour, mists or aerosols may produce respiratory irritation.

Acute toxicity: No LD50 data available for the product. However, for the major constituent: (1)
Oral LD50 (rat): >2,000 mg/kg
Dermal LD50 (rabbit): >2,000 mg/kg
Inhalation LC50 (rat): >7.94 mg/L/4H

Skin corrosion/irritation: Non-irritant. (1)
Serious eye damage/irritation: Non-irritant. (1)
Respiratory or skin sensitisation: No known effect. (1)

Chronic effects: No information available for the product.

Mutagenicity: Not known or reported to be mutagenic. (1)
Carcinogenicity: No evidence of carcinogenic effects. (1)
Reproductive toxicity: Not known or reported to cause reproductive or developmental toxicity. (1)
Specific Target Organ Toxicity (STOT) - single exposure: None known. (1)
Specific Target Organ Toxicity (STOT) - repeated exposure: None known. (1)
Aspiration hazard: Not an aspiration hazard. (1)

12. ECOLOGICAL INFORMATION

Ecotoxicity: Avoid contaminating waterways.
Persistence/degradability: The material is readily biodegradable. (1)
Bioaccumulative potential: Does not bioaccumulate. (1)

Mobility in soil: No information available.

Aquatic toxicity: 72hr EC50 (algae, Pseudokirchneriella subcapitata): >2.8 g/L (major component) (1)

Log Octanol/Water Partition Coefficient: <-1.52 (for sodium (s)-lactate) (1)

48hr EC50 (Daphnia magna): For major component: 130 - 250 mg/L (1)
96hr LC50 (rainbow trout): For major component: 130 mg/L (1)
96hr LC50 (fish): For major component: 320 mg/L (danio rerio) (1)

13. DISPOSAL CONSIDERATIONS

Disposal methods:
Refer to Waste Management Authority. Dispose of contents/container in accordance with local/regional/national/international regulations.

14. TRANSPORT INFORMATION

Road and Rail Transport
Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

Marine Transport
Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.

Air Transport
Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS.

15. REGULATORY INFORMATION

Classification:
Based on available information, not classified as hazardous according to Safe Work Australia; NON-HAZARDOUS SUBSTANCE.

Poisons Schedule (SUSMP): None allocated.

This product is a food additive and is regulated by Food Standards Australia New Zealand (FSANZ).

16. OTHER INFORMATION

(1) Supplier Safety Data Sheet; 02/ 2015.

PURASAL is a registered trademark.
This safety data sheet has been prepared by Ixom Operations Pty Ltd Toxicology & SDS Services.

**Reason(s) for Issue:**
Revised Primary SDS  
Change in Hazardous Substance Classification  
Update in Toxicological Information  
Update in Ecological Information.

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Ixom Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Bronson & Jacobs representative or Ixom Operations Pty Ltd at the contact details on page 1.

Ixom Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

Bronson and Jacobs incorporating the businesses of Woods and Woods and Keith Harris.