## sodium-L-lactate

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## SECTION 1. IDENTIFICATION

| Product name | $:$ sodium-L-lactate |
| :--- | :--- |
| Substance name | $:$ sodium-L-lactate aqueous solution |
| Molecular formula | $:$ C3-H5-O3-Na |
| Chemical identity | $:$ Sodium (S)-2-hydroxypropanoate |
| CAS-No. | : Aqueous solution |
| Chemical nature |  |

Manufacturer or supplier's details
Details of the supplier of the safety data sheet
Company
: Jungbunzlauer Inc.
7 Wells Avenue
Newton Centre, Massachusetts 02459 USA

Telephone : +1617969-0900

## Emergency telephone number

| Emergency telephone num- |
| :--- |
| ber |


| National Chemical Emergency Centre |
| :--- |
| (NCEC) |
|  |
|  |
| +12024642554 |

Recommended use of the chemical and restrictions on use
Recommended use
: Food/ feedstuff additives Pharmaceutical substance Personal care Cleaning agent Industrial use

Restrictions on use : None known.

## SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200
Not a dangerous substance or mixture according to the Globally Harmonised System (GHS).

## GHS label elements

No labeling elements required.
Hazards Not Otherwise Classified
None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

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Substance / Mixture : Mixture
Substance name : sodium-L-lactate aqueous solution
CAS-No. : 867-56-1
Chemical nature : Aqueous solution

## Hazardous components

| Chemical name | CAS-No. | Concentration (\% w/w) |
| :--- | :--- | :---: |
| Non-hazardous ingredients | $867-56-1$ | 60 |
| Sodium-L-lactate | $7732-18-5$ | 40 |
| H2O |  |  |

## SECTION 4. FIRST AID MEASURES

| General advice | : If you feel unwell, seek medical advice (show the label where possible). <br> Show this safety data sheet to the doctor in attendance. |
| :---: | :---: |
| If inhaled | If breathed in, move person into fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. |
| In case of skin contact | Immediately flush skin with large amounts of water. |
| In case of eye contact | If easy to do, remove contact lens, if worn. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. <br> If eye irritation persists, consult a specialist. |
| If swallowed | If swallowed, DO NOT induce vomiting. If symptoms persist, call a physician. Rinse mouth with water. |
| Most important symptoms and effects, both acute and delayed | : No information available. None known. |
| Notes to physician | Treat symptomatically. |

## SECTION 5. FIREFIGHTING MEASURES

| Suitable extinguishing media $:$Water spray <br> Dry powder <br>  <br> Foam <br> Carbon dioxide (CO2) |  |
| :--- | :--- |
|  | Do not use a solid water stream as it may scatter and spread |
| Specific hazards during fire- <br> fighting | Dire. |

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|  | Hazardous decomposition products formed under fire condi- <br> tions. |
| :--- | :--- | :--- |
| Further information | $:$Standard procedure for chemical fires. <br> Use extinguishing measures that are appropriate to local cir- <br> cumstances and the surrounding environment. <br> In the event of fire and/or explosion do not breathe fumes. <br> Use water spray to cool unopened containers. |
| Special protective equipment <br> for firefighters | Wear self-contained breathing apparatus for firefighting if nec- <br> essary. <br> Wear fire resistant or flame retardant clothing. |

## SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec- : tive equipment and emergency procedures

Environmental precautions
Methods and materials for containment and cleaning up

Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation, especially in confined areas. Avoid inhalation of vapour or mist.
: Prevent further leakage or spillage if safe to do so.
: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal. Clean contaminated surface thoroughly.

## SECTION 7. HANDLING AND STORAGE

Advice on protection against : Normal measures for preventive fire protection. fire and explosion

Advice on safe handling : For personal protection see section 8.
Do not breathe vapours or spray mist.
Avoid contact with skin and eyes.
Conditions for safe storage : Store at room temperature in the original container.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters
Contains no substances with occupational exposure limit values.
Engineering measures : Provide adequate ventilation.

Personal protective equipment
Respiratory protection
Not required; except in case of aerosol formation. Use NIOSH approved respiratory protection.

Hand protection
Remarks : Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work.

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| Eye protection | $:$In case of splash hazard, please wear protective goggles. <br> Ensure that eyewash stations and safety showers are close <br> to the workstation location. |
| :--- | :--- |
| Skin and body protection | $:$Choose body protection according to the amount and con- <br> centration of the dangerous substance at the work place. |
| Protective measures | $:$Handle in accordance with good industrial hygiene and safety <br> practice. |
| Hygiene measures | Handle in accordance with good industrial hygiene and safety <br> practice. <br> General industrial hygiene practice. |
|  | Avoid breathing vapours, mist or gas. <br> Avoid contact with skin, eyes and clothing. <br> When using do not eat, drink or smoke. |
| Wash hands before breaks and at the end of workday. |  |
| Wash contaminated clothing before re-use. |  |

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| Appearance | Aqueous solution |
| :---: | :---: |
| Colour | colourless, light yellow |
| Odour | slight, characteristic |
| pH | 6.5-7.5 (77 ${ }^{\circ} \mathrm{F}$ ) <br> Concentration: 20 \% (as aqueous solution) |
| Melting point/range | No data available |
| Boiling point/boiling range | $240{ }^{\circ} \mathrm{F}$ |
| Flash point | does not flash |
| Evaporation rate | No data available |
| Upper explosion limit | Not applicable |
| Lower explosion limit | Not applicable |
| Vapour pressure | No data available |
| Relative vapour density | No data available |
| Density | $1.26-1.34 \mathrm{~g} / \mathrm{cm} 3\left(68{ }^{\circ} \mathrm{F}\right)$ |

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Solubility(ies)
Water solubility : completely miscible
Partition coefficient: n - : log Pow: -1.52 $\left(68^{\circ} \mathrm{F}\right)$
octanol/water
Decomposition temperature : > $392^{\circ} \mathrm{F}$
Viscosity
Viscosity, dynamic : 80-160 mPa.s (68 $\left.{ }^{\circ} \mathrm{F}\right)$
Explosive properties : Not applicable
Dust explosion class : Not applicable

## SECTION 10. STABILITY AND REACTIVITY

| Reactivity | $:$ No decomposition if stored and applied as directed. |  |
| :--- | :---: | :--- |
| Chemical stability | $:$ | Stable under normal conditions. |
| Possibility of hazardous reac- <br> tions | $:$Hazardous decomposition products formed under fire condi- <br> tions. |  |
| Conditions to avoid | $:$ | Temperature $>392^{\circ} \mathrm{F}$ | | Incompatible materials | $:$ |
| :--- | :--- |
|  | No data available |
| Avoid contact with other chemicals. |  |

## SECTION 11. TOXICOLOGICAL INFORMATION

## Acute toxicity

## Components:

## Sodium-L-lactate:

Acute oral toxicity $\quad:$ LD50 Oral (Rat): $2,000 \mathrm{mg} / \mathrm{kg}$
Acute toxicity (other routes of : LD50 (Rat): 2,000 mg/kg administration)

Application Route: i.p.

## Serious eye damage/eye irritation

## Components:

## Sodium-L-lactate:

Contact with eyes may cause irritation.

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## Respiratory or skin sensitisation

Components:
Sodium-L-lactate:
No known sensitising effect.

Germ cell mutagenicity
Components:
Sodium-L-lactate:
Germ cell mutagenicity - : No data available
Assessment

Carcinogenicity
Components:
Sodium-L-lactate:
Carcinogenicity - Assess- : Contains no ingredient listed as a carcinogen ment

## Reproductive toxicity

Components:
Sodium-L-lactate:
Reproductive toxicity - As- : No toxicity to reproduction sessment

## Aspiration toxicity

## Components:

Sodium-L-lactate:
No data available

## Experience with human exposure

Product:

| Inhalation | $:$Target Organs: Respiratory system <br> Symptoms: No information available. |
| :--- | :--- | :--- |
| Skin contact | $:$Target Organs: Skin <br> Symptoms: No information available. |
| Eye contact | $:$Target Organs: Eyes <br> Symptoms: No information available. |
| Ingestion | $:$Target Organs: Digestive organs <br> Symptoms: No information available. |

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## SECTION 12. ECOLOGICAL INFORMATION

## Ecotoxicity

## Components:

## Sodium-L-lactate:

Toxicity to daphnia and other : Ecological injuries are not known or expected under normal aquatic invertebrates use.

Persistence and degradability
Product:
Biodegradability : Test substance: L(+)-Lactic acid Readily biodegradable.

Bioaccumulative potential
Product:
Partition coefficient: n - : log Pow: -1.52 ( $68^{\circ} \mathrm{F}$ ) octanol/water

## Components:

Sodium-L-lactate:

Bioaccumulation

Partition coefficient: n - : log Pow: $-1.52\left(20^{\circ} \mathrm{C}\right)$ octanol/water
: The product is miscible in water and readily biodegradable in both water and soil. Accumulation is not expected.

Mobility in soil
No data available
Other adverse effects
Components:
Sodium-L-lactate:
Results of PBT and vPvB : This substance is not considered to be persistent, bioaccumuassessment lating and toxic (PBT).

## SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

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## SECTION 14. TRANSPORT INFORMATION

## International Regulations

IATA-DGR
Not regulated as a dangerous good
IMDG-Code
Not regulated as a dangerous good
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable for product as supplied.

## National Regulations

DOT
Not regulated as a hazardous material

## SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act
SARA 311/312 Hazards : No SARA Hazards
SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313
: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

## Clean Water Act

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307
California Prop. 65 This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.
The components of this product are reported in the following inventories:
EINECS : On the inventory, or in compliance with the inventory
TSCA : On TSCA Inventory
TSCA_12b : Not applicable
DSL : All components of this product are on the Canadian DSL
REACH : On the inventory, or in compliance with the inventory

## SECTION 16. OTHER INFORMATION

## Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensa-

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tion, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x\% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x\% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x\% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to $50 \%$ of a test population; LD50 - Lethal Dose to $50 \%$ of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZloC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB Very Persistent and Very Bioaccumulative

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