

Safety Data Sheet According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations Document No: SDS-010 Date of Issue: 03/24/2023

Version: 1.0

| SECTION 1: IDENTIFIC | | | | | | | |
|------------------------------|--|-----------------|----------------|-----------------|----------------|-----------------------|-------------|
| 1.1. Product Identif | ier | | | | | | |
| Product Form: Mixture | | | | | | | |
| Product Name: Soltellus 2 | | | | | | | |
| Synonyms: Sodium polya | spartate, Polyaspar | tic acid sodi | um salt | | | | |
| 1.2. Intended Use o | f the Product | | | | | | |
| Use of the Substance/Mi | xture: Not specified | d | | | | | |
| 1.3. Name, Address | , and Telephone | of the Resp | oonsible Pa | irty | | | |
| Company | | | | | | | |
| Lygos, Inc. | | | | | | | |
| 1249 Eighth St | | | | | | | |
| Berkeley, CA 94710 | | | | | | | |
| United States | | | | | | | |
| (510) 356-0555 | | | | | | | |
| www.lygos.com | | | | | | | |
| 1.4. Emergency Tele | ephone Number | | | | | | |
| Emergency Number | : | VelocityEH | IS | | | | |
| | | | 3924 (North | • | | | |
| | | +1 (813)24 | 8-0585 (Inte | ernational) | | | |
| SECTION 2: HAZARDS | IDENTIFICATIO | N | | | | | |
| 2.1. Classification o | f the Substance o | or Mixture | | | | | |
| GHS-US Classification | | | | | | | |
| Not classified | | | | | | | |
| 2.2. Label Elements | | | | | | | |
| GHS-US Labeling | | | | | | | |
| No labeling applicable acc | ording to 29 CFR 1 | 910 1200 | | | | | |
| 2.3. Other Hazards | | 510.1200. | | | | | |
| Exposure may aggravate | na-avisting ava sk | in or respire | atory condit | ions | | | |
| | e Toxicity (GHS-U | - | atory condit | 10113. | | | |
| No data available | | 5) | | | | | |
| SECTION 3: COMPOS | | | | INTS | | | |
| | | | INGREDI | | | | |
| 3.1. Substance | | | | | | | |
| Not applicable | | | | | | | |
| 3.2. Mixture | 1 | | 1 | | 1 | 1 | |
| Name | Synonyms | | Product lo | | %* | GHS US classification | on |
| L-Aspartic acid, | L-aspartic acid, hom sodium salt / Sodiun | | (CAS-No.) | 34345-47-6 | 30 - 60 | Liquid | |
| homopolymer, sodium | polyaspartate / SOD | | | | | | |
| salt | POLYASPARTATE | | | | | | |
| *The specific chemical ide | entity and/or exact | percentage | of composit | ion have been | withheld as a | trade secret [29 CFR | 1910.1200]. |
| Full text of H-phrases: see | e section 16 | | | | | | |
| SECTION 4: FIRST AID | MEASURES | | | | | | |
| 4.1. Description of I | irst-aid Measure | es | | | | | |
| First-aid Measures Gener | al: Never give any | thing by mo | uth to an ur | conscious pers | on. If you fee | l unwell, seek medica | al advice |
| (show the label where po | ssible). | | | | | | |
| First-aid Measures After | Inhalation: When | symptoms o | occur: go into | o open air and | ventilate susp | ected area. Obtain m | nedical |
| attention if breathing diff | | | • | | | | |
| First-aid Measures After | | ove contam | inated cloth | ing. Drench aff | ected area wi | th water for at least | 5 minutes. |
| Obtain medical attention | | | | - | | | |
| <u> </u> | • | | | | | | |
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First-aid Measures After Eye Contact: Rinse cautiously with water for at least 5 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.

First-aid Measures After Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

Symptoms/Injuries: Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/Injuries After Inhalation: Prolonged exposure may cause irritation.

Symptoms/Injuries After Skin Contact: Prolonged exposure may cause skin irritation.

Symptoms/Injuries After Eye Contact: May cause slight irritation to eyes.

Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects.

Chronic Symptoms: None expected under normal conditions of use.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media suitable for surrounding type of fire.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not considered flammable but may burn at high temperatures.

Explosion Hazard: Product is not explosive.

Reactivity: Hazardous reactions will not occur under normal conditions.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO₂). Nitrogen oxides. Sodium oxides.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid prolonged contact with eyes, skin and clothing. Avoid breathing (vapor, mist, spray).

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

6.2. Environmental Precautions

Prevent entry to sewers and public waters.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. **Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: As supplied, this product is a liquid. However, when dried this product may produce combustible dust when processed. Use caution when working with combustible dusts. Use appropriate engineering controls to keep generation of airborne dust to a minimum.

Precautions for Safe Handling: Avoid prolonged contact with eyes, skin and clothing. Avoid breathing vapors, mist, spray. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. **Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures.

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7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

Incompatible Materials: Strong acids, strong bases, strong oxidizers.

7.3. Specific End Use(s)

Not specified

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), or OSHA (PEL).

8.2. Exposure Controls

| Appropriate Engineering Controls : | | Suitable eye/body wash equipment should be available in the vicinity of any |
|------------------------------------|--|--|
| | | potential exposure. Ensure adequate ventilation, especially in confined areas. |
| | | Ensure all national/local regulations are observed. |
| Personal Protective Equipment | : | Gloves. Protective clothing. Protective goggles or glasses. |
| | | |
| Materials for Protective Clothing | ••• | Chemically resistant materials and fabrics. |
| Hand Protection | : | Wear protective gloves. |
| Eye and Face Protection | : Chemical safety goggles or safety glasses with side shields. | |
| Skin and Body Protection | | Wear suitable protective clothing. |
| Respiratory Protection | : | If exposure limits are exceeded or irritation is experienced, approved respiratory |
| | | protection should be worn. In case of inadequate ventilation, oxygen deficient |
| | | atmosphere, or where exposure levels are not known wear approved respiratory |
| | | protection. |
| Other Information | : | When using, do not eat, drink or smoke. |
| SECTION 9: PHYSICAL AND CHEMI | CAI | PROPERTIES |

9.1. Information on Basic Physical and Chemical Properties

| 5.1. Information on basic Physical and Chemical Properties | | | | |
|--|---|---------------------------|--|--|
| Physical State | : | Liquid | | |
| Appearance | : | Light amber | | |
| Odor | : | Not specified | | |
| Odor Threshold | : | No data available | | |
| рН | : | 8 – 10 | | |
| Evaporation Rate | : | No data available | | |
| Melting Point | : | -20 – -10 °C (-4 – 14 °F) | | |
| Boiling Point | : | No data available | | |
| Flash Point | : | No data available | | |
| Auto-ignition Temperature | : | No data available | | |
| Decomposition Temperature | : | No data available | | |
| Flammability (solid, gas) | : | Not applicable | | |
| Vapor Pressure | : | No data available | | |
| Relative Vapor Density at 20°C | : | No data available | | |
| Relative Density | : | 1.24 – 1.28 (Water = 1) | | |
| Solubility | : | Water: Soluble | | |
| Partition Coefficient: N-Octanol/Water | : | No data available | | |
| Viscosity | • | No data available | | |
| Viscosity, Kinematic | : | 0.25 – 0.7 mm²/s | | |

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9.2. Other Information

No additional information available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Hazardous reactions will not occur under normal conditions.

10.2. Chemical Stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

10.4. Conditions to Avoid

Direct sunlight, extremely high or low temperatures, and incompatible materials.

10.5. Incompatible Materials

Strong acids, strong bases, strong oxidizers.

10.6. Hazardous Decomposition Products

Thermal decomposition may produce: Carbon oxides (CO, CO₂). Nitrogen oxides. Sodium oxides.

> 5000 mg/kg

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects

Acute Toxicity (Oral): Not classified

Acute Toxicity (Dermal): Not classified

Acute Toxicity (Inhalation): Not classified

Soltellus 2301L

LD50 Oral Rat Skin Corrosion/Irritation: Not classified

pH: 8 – 10

Serious Eye Damage/Irritation: Not classified

pH: 8 – 10

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Carcinogenicity: Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Prolonged exposure may cause irritation.

Symptoms/Injuries After Skin Contact: Prolonged exposure may cause skin irritation.

Symptoms/Injuries After Eye Contact: May cause slight irritation to eyes.

Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects.

Chronic Symptoms: None expected under normal conditions of use.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

| Ecology - General | : Not classified. |
|-----------------------------------|---|
| Soltellus 2301L | |
| LC50 Fish 1 | 1000 mg/l (Exposure time: 96h) (Species: Scophthalamus maximus) |
| EC50 - Crustacea [1] | 1792 mg/l (Exposure time: 48h) (Species: Daphnia pulex) |
| ErC50 (Algae) | 1000 mg/l (Exposure time: 72h) (Species: Skeletonema costatum) |
| 12.2. Persistence and Degradabili | ty |
| Soltellus 2301L | |
| | |

Persistence and Degradability Not established. 12.3. Bioaccumulative Potential Soltellus 2301L Bioaccumulative Potential Not established.

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12.4. Mobility in Soil

No additional information available

12.5. Other Adverse Effects

Other Information

: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste Treatment Methods

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, and international regulations.

Ecology - Waste Materials: Avoid release to the environment.

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SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1. In Accordance with DOT

Not regulated for transport

14.2. In Accordance with IMDG

Not regulated for transport

14.3. In Accordance with IATA

Not regulated for transport

SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

| L-Aspartic acid, homopolymer, sodium salt (34345-47-6) | | |
|--|---|--|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active | | |
| EPA TSCA Regulatory Flag | PMN - PMN - indicates a commenced PMN substance. | |
| | XU - XU - indicates a substance exempt from reporting under the | |
| | Chemical Data Reporting Rule, (40 CFR 711). | |

15.2. US State Regulations

Neither this product nor its chemical components appear on any US state lists, or its chemical components are not required to be disclosed

| SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION | | | | |
|---|--|--|--|--|
| Date of Preparation or Latest Revision : 03/24/2023 | | | | |
| Other Information | | This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 | | |

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SDS US (GHS HazCom)

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