



# Safety Data Sheet

Revision Date: 11-Apr-2016

Version 3

## 1. IDENTIFICATION

### Product Identifier

**Product(s) Name** PRESIDE CL and PRIMO CL

### Other means of identification

**SDS #** FFN: Not Assigned

### Recommended use of the chemical and restrictions on use

**Recommended Use** Fertilizer.

### Details of the supplier of the safety data sheet

#### **Supplier Address**

Verdesian Life Sciences, U.S., LLC.  
1001 Winstead Drive, Suite 480  
Cary, NC 27513

### Emergency Telephone Number

**Company Phone Number** Business Phone: 1-800-350-4789

Fax Phone: (919) 535-3652

**Emergency Telephone (24 hr)** INFOTRAC 1-352-323-3500 (International)

1-800-535-5053 (North America)

## 2. HAZARDS IDENTIFICATION

**Appearance** Yellow to brown liquid

**Physical State** Liquid

**Odor** Mild

### Classification

This chemical does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). However, this Safety Data Sheet (SDS) contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

The active microbiological ingredient in PRESIDE CL is a culture comprising of a single strain of rhizobia bacteria, plus a biological growth promoter, Bradyrhizobium japonicum. Each unit also contains a proprietary blend of rhizobium extension components in a separate aqueous solution.

Contains naturally occurring Rhizobacterium and growth enhancement compounds. These are symbiotic nitrogen-fixing bacteria, to be applied as a seed treatment or in-furrow at seed planting, to specific legume crops (not a plant food product). See product label for specific crop information, application rates and methods. Not for food, feed or drug use.

## 4. FIRST-AID MEASURES

### First Aid Measures

|                       |  |
|-----------------------|--|
| <b>General Advice</b> | Provide this SDS to medical personnel for treatment.   |
| <b>Eye Contact</b>    | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists: Get medical advice/attention.       |
| <b>Skin Contact</b>   | Wash off immediately with plenty of water. Take off contaminated clothing. Wash contaminated clothing before reuse.                                      |
| <b>Inhalation</b>     | Remove exposed individual(s) to fresh air for 20 minutes. Consult a physician / poison center if individual's condition declines or if symptoms persist. |
| <b>Ingestion</b>      | Do not induce vomiting. Rinse mouth. Get medical attention if you feel unwell.   |

**Most important symptoms and effects**

|                 |                                    |
|-----------------|------------------------------------|
| <b>Symptoms</b> | May cause skin and eye irritation. |
|-----------------|------------------------------------|

**Indication of any immediate medical attention and special treatment needed**

|                           |                        |
|---------------------------|------------------------|
| <b>Notes to Physician</b> | Treat symptomatically. |
|---------------------------|------------------------|

## 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media** Not determined.

**Specific Hazards Arising from the Chemical**

Product is not flammable.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

|                                  |   |
|----------------------------------|---|
| <b>Personal Precautions</b>      | Use personal protective equipment as required.        |
| <b>Environmental Precautions</b> | See Section 12 for additional Ecological Information. |

**Methods and material for containment and cleaning up**

|                                |   |
|--------------------------------|---|
| <b>Methods for Containment</b> | Prevent further leakage or spillage if safe to do so. |
| <b>Methods for Clean-Up</b>    | Keep in suitable, closed containers for disposal.     |

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

|                                |  |
|--------------------------------|--|
| <b>Advice on Safe Handling</b> | Wash thoroughly after handling. Use personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. |
|--------------------------------|--|

**Conditions for safe storage, including any incompatibilities**

|                           |  |
|---------------------------|--|
| <b>Storage Conditions</b> | Keep containers tightly closed in a dry, cool and well-ventilated place. |
|---------------------------|--|

**Incompatible Materials**

Some seed-applied chemicals, including fungicides, may be harmful to the bacteria in this product. See product label for further information on the use of fungicides or other chemicals in conjunction with seed treatment.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Guidelines**

No exposure limits noted for ingredient(s). The following information is given as general guidance

**Appropriate engineering controls****Engineering Controls**

Apply technical measures to comply with the occupational exposure limits.

**Individual protection measures, such as personal protective equipment****Eye/Face Protection**

Wear eye/face protection.

**Skin and Body Protection**

Wear suitable protective clothing.

**Respiratory Protection**

Ensure adequate ventilation, especially in confined areas.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

|                                     |                        |                                |                |
|-------------------------------------|------------------------|--------------------------------|----------------|
| <b>Physical State</b>               | Liquid                 | <b>Odor</b>                    | Mild           |
| <b>Appearance</b>                   | Yellow to brown liquid | <b>Odor Threshold</b>          | Not determined |
| <b>Color</b>                        | Yellow to brown        |                                |                |
| <b><u>Property</u></b>              | <b><u>Values</u></b>   | <b><u>Remarks • Method</u></b> |                |
| <b>pH</b>                           | 6.5-7.4                |                                |                |
| <b>Melting Point/Freezing Point</b> | -4 °C / 25 °F          |                                |                |
| <b>Boiling Point/Boiling Range</b>  | 102 °C / 216 °F        |                                |                |
| <b>Flash Point</b>                  | Not determined         |                                |                |
| <b>Evaporation Rate</b>             | Not determined         |                                |                |
| <b>Flammability (Solid, Gas)</b>    | Not determined         |                                |                |
| <b>Upper Flammability Limits</b>    | Not determined         |                                |                |
| <b>Lower Flammability Limit</b>     | Not determined         |                                |                |
| <b>Vapor Pressure</b>               | Not determined         |                                |                |
| <b>Vapor Density</b>                | Not determined         |                                |                |
| <b>Specific Gravity</b>             | 1.0 g/cc               |                                |                |
| <b>Water Solubility</b>             | Insoluble in water     |                                |                |
| <b>Solubility in other solvents</b> | Not determined         |                                |                |
| <b>Partition Coefficient</b>        | Not determined         |                                |                |
| <b>Auto-ignition Temperature</b>    | Not determined         |                                |                |
| <b>Decomposition Temperature</b>    | Not determined         |                                |                |
| <b>Kinematic Viscosity</b>          | Not determined         |                                |                |
| <b>Dynamic Viscosity</b>            | Not determined         |                                |                |
| <b>Explosive Properties</b>         | Not determined         |                                |                |
| <b>Oxidizing Properties</b>         | Not determined         |                                |                |

## 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions.

### Chemical Stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

**Hazardous Polymerization** Hazardous polymerization does not occur.

### Conditions to Avoid

Incompatible Materials.

### Incompatible Materials

Some seed-applied chemicals, including fungicides, may be harmful to the bacteria in this product. See product label for further information on the use of fungicides or other chemicals in conjunction with seed treatment.

### Hazardous Decomposition Products

Oxides of carbon.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

**Eye Contact** Direct contact with eyes may cause temporary irritation.

**Skin Contact** May cause temporary irritation on skin contact.

**Inhalation** Not an expected route of exposure.

**Ingestion** May cause discomfort if swallowed.

Component Information Mixture

### Information on physical, chemical and toxicological effects

**Symptoms** Please see section 4 of this SDS for symptoms.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Sensitization** Not a skin sensitizer.

**Carcinogenicity** Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

**Numerical measures of toxicity**

## Product Information

|                    |              |
|--------------------|--------------|
| <b>Oral LD50</b>   | > 5000 mg/kg |
| <b>Dermal LD50</b> | > 2000 mg/kg |

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

This product contains nonpathogenic, biodegradable Rhizobacterial strain(s) that occur(s) naturally in soil.

**Component Information**

Mixture

**Persistence/Degradability**

Not determined.

**Bioaccumulation**

Not determined.

**Mobility**

Not determined

**Other Adverse Effects**

Not determined

**13. DISPOSAL CONSIDERATIONS****Waste Treatment Methods****Disposal of Wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**14. TRANSPORT INFORMATION****Note**

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

**DOT**

Not regulated

**IATA**

Not regulated

**IMDG**

Not regulated

**15. REGULATORY INFORMATION****International Inventories**

None

**US Federal Regulations**

**SARA 313**

Not determined

**US State Regulations****U.S. State Right-to-Know Regulations**

Not determined

**16. OTHER INFORMATION****NFPA****Health Hazards**

Not determined

**Flammability**

Not determined

**Instability**

Not determined

**Special Hazards**

Not determined

**HMIS****Health Hazards**

0

**Flammability**

0

**Physical Hazards**

0

**Personal Protection**

Not determined

**Issue Date:**

18-Feb-2015

**Revision Date:**

11-Apr-2016

**Revision Note:**

Phone number update

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**