MATERIAL SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION

Product identifier: Optic Foliar Overgrow

Product Code(s): None reported.

Product Use: Ready to use fertilizer spray for plants.

Chemical Family: Mixture.

Supplier's name and address: Tulsi Enterprises Ltd.
140-12815 Clarke Pl.
Richmond, BC, Canada
V6V 2H9

Information Telephone #: 604-218-8567 (Monday to Friday, 9am to 5pm, Pacific Time)

24 Hr. Emergency Tel #: Refer to supplier

SECTION 2 - HAZARDS IDENTIFICATION

Classification: WHMIS information: This product is not a WHMIS controlled product in Canada. It does not meet any of the criteria for a controlled product provided in Part IV of the Controlled Products Regulations (CPR).

OSHA: This material is not classified as hazardous under OSHA regulations (29 CFR Part 1910.1200).

Emergency Overview: Light green liquid. Slight odour. Caution! Inhalation of vapours in high concentration may cause irritation of respiratory system. Repeated or excessive exposure may cause slight skin and eye irritation.

POTENTIAL HEALTH EFFECTS:

Signs and symptoms of short-term (acute) exposure

Inhalation: Inhalation of vapours or mists may cause irritation to the nose, throat and upper respiratory tract. Symptoms may include coughing, chest pain and shortness of breath.

Skin: Direct skin contact may cause slight or mild, transient irritation.

Eyes: May cause slight irritation. Symptoms may include stinging and tearing.

Ingestion: May have laxative effects. Symptoms include nausea, vomiting and diarrhea.

Effects of long-term (chronic) exposure: No exposure effects reported.

Carcinogenic status: See TOXICOLOGICAL INFORMATION, Section 11.

Additional health hazards: See TOXICOLOGICAL INFORMATION, Section 11.

Potential environmental effects: See ECOLOGICAL INFORMATION, Section 12.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS #</th>
<th>Wt.%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soluble Potash</td>
<td>39365-88-3</td>
<td>0.10 - 0.30</td>
</tr>
</tbody>
</table>

SECTION 4 - FIRST AID MEASURES

Inhalation: If breathed in, move person into fresh air. If breathing is irregular or stopped, administer artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. If irritation or symptoms develop, seek medical attention.
Skin contact: Immediately flush skin with running water for at least 15 minutes, while removing contaminated clothing. Wash contaminated clothing before re-use. If irritation or symptoms develop, seek medical attention.

Eye contact: Remove contact lenses if present and easy to do. Immediately flush eyes with plenty of water for at least 15 minutes. If irritation or symptoms develop, seek medical attention.

Ingestion: Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth if victim is unconscious. If symptoms develop, seek medical attention.

Notes For Physician: Treat symptomatically.

SECTION 5 - FIRE FIGHTING MEASURES

Fire hazards/conditions of flammability: Not flammable under normal conditions of use. However, may ignite if exposed to extreme heat and flame.


Oxidizing properties: None known.

Explosion data: Sensitivity to mechanical impact / static discharge: Not expected to be sensitive to mechanical impact or static discharge.

Suitable extinguishing media: Use media suitable to the surrounding fire such as water fog or fine spray, alcohol foams, carbon dioxide and dry chemical.

Special fire-fighting procedures/equipment: Move containers from fire area if safe to do so. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products: Oxides of phosphorus and oxides of sulphur.

NFPA Rating:

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Instability</th>
<th>Special Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>0</td>
<td>None</td>
</tr>
</tbody>
</table>

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear suitable protective equipment. Refer to protective measures listed in sections 7 and 8. Keep people away from and upwind of spill/leak.

Environmental precautions: Do not allow material to contaminate ground water system. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply.

Spill response/cleanup: Ventilate area of release. Remove all sources of ignition. Stop spill or leak at source if safely possible. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13). Do not flush into surface water or sanitary sewer system. Contaminated absorbent material may pose the same hazards as the spilled product. Notify the appropriate authorities as required.

Prohibited materials: None known or reported by the manufacturer.

Special spill response procedures: If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8802). US CERCLA Reportable quantity (RQ): None reported.

SECTION 7 - HANDLING AND STORAGE

Safe Handling procedures: Use only in well-ventilated areas. Wear protective gloves/clothing and eye/face protection. Avoid breathing fumes or vapors. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Keep away from incompatibles. Keep container tightly closed. Wash thoroughly after handling.

Storage requirements: Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat. Inspect periodically for damage or leaks. Protect against physical damage. No smoking in the area. Keep away from incompatibles.

Incompatible materials: Oxidizing agents.

Special packaging materials: Always keep in containers made of the same materials as the supply container.
**SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION**

**Exposure Limits**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
</tr>
<tr>
<td>Soluble Potash</td>
<td>N/Av</td>
<td>N/Av</td>
</tr>
</tbody>
</table>

**Ventilation and engineering measures**

- Use only in well-ventilated areas. Provide sufficient ventilation to keep vapour concentration below the given TLV and/or PEL.

**Respiratory protection**

- Respiratory protection is required if the concentrations exceed the TLV. Use NIOSH/MSHA approved equipment. Advice should be sought from respiratory protection specialists.

**Skin protection**

- Wear gloves impervious to this material. Advice should be sought from glove suppliers.

**Eye / face protection**

- Chemical splash goggles must be worn when handling this material.

**Other protective equipment**

- Ensure that eyewash stations and safety showers are close to the workstation location.

**General hygiene considerations**

- Avoid breathing vapors or mists. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

**Physical state**

- Liquid.

**Odour**

- Slight odour.

**pH**

- 11

**Boiling point**

- N/Av

**Melting/Freezing point**

- 0°C (32°F)

**Coefficient of water/oil distribution**

- N/Av

**Vapour pressure (mmHg @ 20° C / 68° F)**

- N/Av

**Vapour density (Air = 1)**

- N/Av

**Evaporation rate (n-Butyl acetate = 1)**

- N/Av

**Volatile organic Compounds (VOC’s)**

- None.

**Flash point**

- N/Av

**Flash point Method**

- N/Av

**Auto-ignition temperature**

- N/Av

**Upper flammable limit (% by vol.)**

- N/Av

**Lower flammable limit (% by vol.)**

- N/Av

**Flame Projection Length**

- N/Av

**Viscosity**

- Close to water

**Absolute pressure of container**

- N/Av

**SECTION 10: STABILITY AND REACTIVITY**

**Stability and reactivity**

- Stable under normal conditions.

**Hazardous polymerization**

- Hazardous polymerization does not occur.

**Conditions to avoid**

- Direct sources of heat. Avoid contact with incompatible materials.

**Materials To Avoid And Incompatibility**

- Strong oxidizers (e.g. Chlorine, Peroxides, etc.).

**Hazardous decomposition products**

- None known, refer to hazardous combustion products in Section 5.

**SECTION 11 - TOXICOLOGICAL INFORMATION**

**Target organs**

- Eyes, skin, respiratory system and digestive system.
Routes of exposure: 
- Inhalation: YES
- Skin Absorption: NO
- Skin & Eyes: YES
- Ingestion: YES

Toxicological data:
There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.

### Toxicological data

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>LC₅₀ (inh, rat)</th>
<th>LD₅₀ (Oral, rat)</th>
<th>LD₅₀ (Rabbit, dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soluble Potash</td>
<td>N/Av</td>
<td>N/Av</td>
<td>N/Av</td>
</tr>
</tbody>
</table>

Carcinogenic status: No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

Reproductive effects: Not expected to cause reproductive effects.

Teratogenicity: Not expected to be a teratogen.

Mutagenicity: Not expected to be mutagenic in humans.

Epidemiology: No information available.

Sensitization to material: Not expected to be a skin or respiratory sensitizer.

Synergistic materials: No information available.

Irritancy: Mild.

**other important hazards**: None known.

Conditions aggravated by overexposure: Pre-existing skin and respiratory disorders.

### SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity: See the following tables for individual ingredient ecotoxicity data.

#### Ecotoxicity data:

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS No</th>
<th>Toxicity to Fish</th>
<th>Toxicity to Daphnia</th>
<th>Toxicity to Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>LC₅₀ / 96h</td>
<td>NOEC / 21 day</td>
<td>M Factor</td>
</tr>
<tr>
<td>Soluble Potash</td>
<td>39365-88-3</td>
<td>N/Av</td>
<td>N/Av</td>
<td>N/Av</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EC₅₀ / 48h</td>
<td>NOEC / 21 day</td>
<td>M Factor</td>
</tr>
<tr>
<td>Soluble Potash</td>
<td>39365-88-3</td>
<td>N/Av</td>
<td>N/Av</td>
<td>N/Av</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EC₅₀ / 96h or 72h</td>
<td>NOEC / 96h or 72h</td>
<td>M Factor</td>
</tr>
<tr>
<td>Soluble Potash</td>
<td>39365-88-3</td>
<td>N/Av</td>
<td>N/Av</td>
<td>N/Ap</td>
</tr>
</tbody>
</table>

**Mobility**: The product itself has not been tested.

**Persistence**: The product itself has not been tested.

**Bioaccumulation potential**: The product itself has not been tested.

**Other Adverse Environmental effects**: None known.

### SECTION 13 - DISPOSAL CONSIDERATIONS

Handling for Disposal: Handle in accordance with good industrial hygiene and safety practice. Refer to protective measures listed in sections 7 and 8. Do not cut, weld, drill or grind on or near this container.

Methods of Disposal: Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.
Optic Foliar Overgrow
MSDS Preparation Date (mm/dd/yyyy): 04/18/2013

RCRA

If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14: TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>Regulatory Information</th>
<th>UN Number</th>
<th>Shipping Name</th>
<th>Class</th>
<th>Packing Group</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>49CFR/DOT</td>
<td>None</td>
<td>Not regulated</td>
<td>Not regulated</td>
<td>none</td>
<td></td>
</tr>
<tr>
<td>49CFR/DOT Additional information</td>
<td>None.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TDG</td>
<td>None</td>
<td>Not regulated</td>
<td>Not regulated</td>
<td>none</td>
<td></td>
</tr>
<tr>
<td>TDG Additional information</td>
<td>None.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION 15 - REGULATORY INFORMATION

US Federal Information:
Components listed below are present on the following U.S. Federal chemical lists:

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS #</th>
<th>TSCA Inventory</th>
<th>CERCLA Reportable Quantity(RQ) (40 CFR 117.302);</th>
<th>SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:</th>
<th>SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical Toxic Chemical de minimus Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soluble Potash</td>
<td>39365-88-3</td>
<td>NL</td>
<td>N/Ap</td>
<td>N/Av</td>
<td>No</td>
</tr>
</tbody>
</table>

SARA TITLE III: Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: None. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

US State Right to Know Laws:
The following chemicals are specifically listed by individual States:

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS #</th>
<th>California Proposition 65 Listed</th>
<th>Type of Toxicity</th>
<th>State “Right to Know” Lists</th>
<th>CA</th>
<th>MA</th>
<th>MN</th>
<th>NJ</th>
<th>PA</th>
<th>RI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soluble Potash</td>
<td>39365-88-3</td>
<td>No</td>
<td>N/Ap</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Canadian Information:
Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

Refer to Section 2 for a WHMIS Classification for this product.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and this MSDS contains all the information required by the CPR.

International Information:
Components listed below are present on the following International Inventory list:
 SECTION 16 - OTHER INFORMATION

HMIS Rating

- Chronic hazard  0 - Minimal  1 - Slight  2 - Moderate  3 - Serious  4 - Severe

Health: 1  Flammability: 1  Reactivity: 0

Legend

ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstract Services
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR: Code of Federal Regulations
cSt: Centistokes
DOT: Department of Transportation
EPA: Environmental Protection Agency
HMIS: Hazardous Materials Identification System
HSDB: Hazardous Substances Data Bank
IARC: International Agency for Research on Cancer
IMDG: International Maritime Dangerous Goods
Inh: Inhalation
LC: Lethal Concentration
LD: Lethal Dose
MSHA: Mine Safety and Health Administration
N/Ap: Not Applicable
N/Av: Not Available
NFPA: National Fire Protection Association
NIOSH: National Institute of Occupational Safety and Health
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration
PEL: Permissible exposure limit
RCRA: Resource Conservation and Recovery Act
RTECS: Registry of Toxic Effects of Chemical Substances
SARA: Superfund Amendments and Reauthorization Act
STEL: Short Term Exposure Limit
TDG: Canadian Transportation of Dangerous Goods Act & Regulations
TLV: Threshold Limit Values
TWA: Time Weighted Average
WHMIS: Workplace Hazardous Materials Identification System

References

1. ACGIH, Threshold Limit Values and Biological Exposure Indices for 2012.
3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, 2013 (Chempendium and RTECs).
4. Material Safety Data Sheet from manufacturer.
5. US EPA Title III List of Lists, July 2011 version.

Prepared for:
Tulsi Enterprises Ltd
140-12815 Clarke Pl.
Richmond, BC, Canada, V6V 2H9
Telephone: 604-218-8567
Please direct all enquiries to: Tulsi Enterprises Ltd.

Prepared by:
ICC The Compliance Center Inc.
http://www.thecompliancecenter.com
DISCLAIMER OF LIABILITY

This Material Safety Data Sheet was prepared by ICC The Compliance Center Inc. using information provided by Tulsi Enterprises Ltd and CCOHS’ Web Information Service. The information in the Material Safety Data Sheet (MSDS) is offered for your consideration and guidance when exposed to this product. ICC The Compliance Center Inc and Tulsi Enterprises Ltd expressly disclaim all expressed or implied warranties and assume no responsibilities for the accuracy or completeness of the data contained herein. The data in this MSDS does not apply to use with any other product or in any other process.

This Material Safety Data Sheet may not be changed, or altered in any way without the expressed knowledge and permission of ICC The Compliance Center Inc. and Tulsi Enterprises Ltd.

Preparation Date (mm/dd/yyyy)  :  04/18/2013

END OF DOCUMENT