

## 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

**Manufacturer's name and address:** **Refer to Supplier**

**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

<u>Ingredients</u>	<u>CAS #</u>	<u>Wt.%</u>
Soluble Potash	39365-88-3	0.10 - 0.30

### 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.

**Optic Foliar Overgrow**

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

- 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.

**Flammability classification (OSHA 29 CFR 1910.1200)** : Non-flammable.

**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**                    0 - Minimal    1 - Slight    2 - Moderate    3 - Serious    4 - Severe

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: *Health:* 1    *Flammability:* 1    *Instability:* 0    *Special Hazards:* None

**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**

<u>Exposure Limits</u>				
<u>Ingredients</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
	<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Soluble Potash	N/Av	N/Av	N/Av	N/Av

**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**

<b>Physical state</b>	: Liquid.	<b>Appearance</b>	: Light green liquid
<b>Odour</b>	: Slight odour.	<b>Odour threshold</b>	: N/Av
<b>pH</b>	: 11		
<b>Boiling point</b>	: N/Av	<b>Specific gravity</b>	: N/Av
<b>Melting/Freezing point</b>	: 0°C (32°F)	<b>Coefficient of water/oil distribution</b>	: N/Av
<b>Vapour pressure (mmHg @ 20° C / 68° F)</b>	: N/Av	<b>Solubility in water</b>	: N/Av
<b>Vapour density (Air = 1)</b>	: N/Av	<b>Evaporation rate (n-Butyl acetate = 1)</b>	: N/Av
<b>Volatile organic Compounds (VOC's)</b>	: None.	<b>Volatiles (% by weight)</b>	: N/Av
<b>Flash point</b>	: N/Av		
<b>Flash point Method</b>	: N/Av	<b>Auto-ignition temperature</b>	: N/Av
<b>Lower flammable limit (% by vol.)</b>	: N/Av	<b>Upper flammable limit (% by vol.)</b>	: N/Av
<b>Flame Projection Length</b>	: N/Av	<b>Flashback observed</b>	: N/Av
<b>Viscosity</b>	: Close to water		
<b>Absolute pressure of container</b>	: N/Av		

**SECTION 10: STABILITY AND REACTIVITY**

<b>Stability and reactivity</b>	: Stable under normal conditions.
<b>Hazardous polymerization</b>	: Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	: Direct sources of heat. Avoid contact with incompatible materials.
<b>Materials To Avoid And Incompatibility</b>	: Strong oxidizers (e.g. Chlorine, Peroxides, etc.).
<b>Hazardous decomposition products</b>	: None known, refer to hazardous combustion products in Section 5.

**SECTION 11 - TOXICOLOGICAL INFORMATION**

**Target organs** : Eyes, skin, respiratory system and digestive system.

**Optic Foliar Overgrow**

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

**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.

<u>Ingredients</u>	LC <sub>50</sub> (4hr)	LD <sub>50</sub>	
	<u>inh, rat</u>	<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
Soluble Potash	N/Av	N/Av	N/Av

**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:**

<u>Ingredients</u>	CAS No	Toxicity to Fish		
		LC50 / 96h	NOEC / 21 day	M Factor
Soluble Potash	39365-88-3	N/Av	N/Av	N/Av

<u>Ingredients</u>	CAS No	Toxicity to Daphnia		
		EC50 / 48h	NOEC / 21 day	M Factor
Soluble Potash	39365-88-3	N/Av	N/Av	N/Av

<u>Ingredients</u>	CAS No	Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
Soluble Potash	39365-88-3	N/Av	N/Av	N/Av

**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**

Regulatory Information	UN Number	Shipping Name	Class	Packing Group	Label
49CFR/DOT	None	Not regulated.	Not regulated	none	
<b>49CFR/DOT Additional information</b>	None.				
TDG	None	Not regulated.	Not regulated	none	
<b>TDG Additional information</b>	None.				

**SECTION 15 - REGULATORY INFORMATION**

**US Federal Information:**

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

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

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:

<u>Ingredients</u>	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Soluble Potash	39365-88-3	No	N/Ap	No	No	No	No	No	No

**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:

Ingredients	CAS #	European EINECs	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NewZealand IOC
Soluble Potash	39365-88-3	None.	Present	Not listed	Not listed	KE-33801	Not listed	Not listed

**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.  
 2. International Agency for Research on Cancer Monographs, searched 2013.  
 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.  
 6. California Proposition 65 List - February 8, 2013 version.

<p><b>Prepared for:</b>                  Tulsi Enterprises Ltd                  140-12815 Clarke Pl.                  Richmond, BC, Canada, V6V 2H9                  Telephone: 604-218-8567                  Please direct all enquiries to: Tulsi Enterprises Ltd.</p>	
<p><b>Prepared by:</b>                  ICC The Compliance Center Inc.  <a href="http://www.thecompliancecenter.com">http://www.thecompliancecenter.com</a></p>	

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**Preparation Date (mm/dd/yyyy)**

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