



## TULSI ENTERPRISES LTD.

### Safety Data Sheet Transport

---

#### SECTION 1: Identification

##### 1.1 Product identifier

Product name	Transport
Brand	Optic Foliar

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

Plant Foliar Spray

##### 1.4 Supplier's details

Name	Tulsi Enterprises Ltd.
Address	PO BOX 31016, Sunshine Village, Delta BC V4E 3M9

Telephone	(604) 218-8567
-----------	----------------

##### 1.5 Emergency phone number(s)

(604) 218-8567

---

#### SECTION 2: Hazard identification

##### 2.1 Classification of the substance or mixture

**GHS classification in accordance with: (US) OSHA (29 CFR 1910.1200)**

Not a hazardous substance or mixture.

##### 2.2 GHS label elements, including precautionary statements

Not a hazardous substance or mixture.

##### 2.3 Other hazards which do not result in classification

Not a hazardous substance or mixture.

---

#### SECTION 3: Composition/information on ingredients

# Safety Data Sheet

## Transport

### 3.2 Mixtures

#### Components

##### 1. Potassium nitrate

Concentration 1-2 %  
CAS no. 7757-79-1

- Oxidizing solids, Cat. 3

H272 May intensify fire; oxidizer

##### 2. Water

Concentration 95-98 %  
EC no. 231-791-2  
CAS no. 7732-18-5

---

## SECTION 4: First-aid measures

### 4.1 Description of necessary first-aid measures

If inhaled	Remove to fresh air and promote deep breathing. Get medical attention if effects persist.
In case of skin contact	Wash with plenty of water for at least 15 minutes. Call a poison center or doctor if irritation develops or persists. Take off contaminated clothing and wash it before reuse.  Acute and delayed symptoms and effects: Causes skin irritation. Signs/symptoms may include localized redness, swelling, and itching.
In case of eye contact	Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention/advice.  Acute and delayed symptoms and effects: Causes serious eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.
If swallowed	Do not induce vomiting. Never give anything by mouth to an unconscious person. Give water to drink if conscious. Get medical attention if effects persist.  Acute and delayed symptoms and effects: May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

### 4.2 Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically and supportively.

# Safety Data Sheet

## Transport

---

### SECTION 5: Fire-fighting measures

#### 5.1 Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### 5.2 Specific hazards arising from the chemical

None known

#### 5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

#### Further information

Use water spray to cool unopened containers.

---

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Wear personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

#### 6.2 Environmental precautions

Do not discharge product into natural waters without pre-treatment or adequate dilution.

#### 6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of in accordance with applicable local or national requirements. Keep in suitable, closed containers for disposal.

#### Reference to other sections

For disposal see section 13.

---

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Do not eat, drink or smoke while handling. Wash hands with soap and water after handling. Keep out of the reach of children. For precautions see section 2.

#### 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

#### Specific end use(s)

Apart from the uses mentioned in section 1 no other specific uses are stipulated.

---

### SECTION 8: Exposure controls/personal protection

#### 8.2 Appropriate engineering controls

Under manufacturer's recommended use, no particular controls necessary.

#### 8.3 Individual protection measures, such as personal protective equipment (PPE)

##### Eye/face protection

Chemical goggles or safety glasses.

##### Skin protection

# Safety Data Sheet

## Transport

Wear suitable protective clothing.

### Body protection

Manufacturing Sites:

Wear suitable protective clothing.

Distribution, Workplace and Household Settings:

No special protective equipment required

### Respiratory protection

Distribution, Workplace and Household Settings: No special protective equipment required. Product Manufacturing Plant (needed at Product-Producing Plant ONLY): In case of insufficient ventilation wear suitable respiratory equipment

### Thermal hazards

No data available.

### Environmental exposure controls

No data available.

---

## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	Clear to Yellow Liquid
Odor	No Odor
Odor threshold	No data available.
pH	8.0
Melting point/freezing point	No data available.
Initial boiling point and boiling range	No data available.
Flash point	No data available.
Evaporation rate	No data available.
Flammability (solid, gas)	No data available.
Upper/lower flammability limits	No data available.
Upper/lower explosive limits	No data available.
Vapor pressure	No data available.
Vapor density	No data available.
Relative density	No data available.
Solubility(ies)	No data available.
Partition coefficient: n-octanol/water	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Viscosity	No data available.
Explosive properties	No data available.
Oxidizing properties	No data available.

### Other safety information

No data available.

---

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Contact with incompatible materials. Sources of ignition. Exposure to heat.

# Safety Data Sheet

## Transport

### 10.2 Chemical stability

Stable under normal storage conditions.

### 10.3 Possibility of hazardous reactions

No data available.

### 10.4 Conditions to avoid

Heat, flames and sparks. Incompatible products. Keep away from open flames, hot surfaces and sources of ignition.

### 10.5 Incompatible materials

Avoid contact with strong oxidizers, strong mineral acids such as sulphuric acid, nitrating agents, halogenating agents, alkali metals or aluminum.

### 10.6 Hazardous decomposition products

Nitrogen oxides, ammonia, hydrogen cyanide, nitriles, isocyanates, nitrosamines, formaldehyde, carbon monoxide, carbon dioxide and other unidentified hydrocarbons in smoke may occur.

-----

Water: In the event of fire: see section 5

---

## SECTION 11: Toxicological information

### Information on toxicological effects

#### Acute toxicity

As Mixture: No data available.

-----

Potassium nitrate: Acute Oral Toxicity: LD50 >2000 mg/kg bw

Acute Dermal Toxicity: LD50 >2000 mg/kg bw

Acute Inhalation Toxicity: LC50 >0.527 mg/L (highest attainable concentration)

#### Skin corrosion/irritation

As Mixture: No data available.

-----

Potassium nitrate: No reliable skin irritation study with potassium nitrate itself is present. However, in a reliable skin irritation study in rabbits (performed comparable to OECD 404) with ammonium nitrate, no signs of skin irritation was observed up to 72 hours.

#### Serious eye damage/irritation

As Mixture: No data available.

-----

Potassium nitrate: Potassium nitrate did not show irritation effects in an in vitro and in vivo eye irritation study according to the respective OECD guidelines.

#### Respiratory or skin sensitization

As Mixture: No data available.

-----

Potassium nitrate: Not Sensitizer.

#### Germ cell mutagenicity

As Mixture: No data available.

## Safety Data Sheet

### Transport

-----

Potassium nitrate: Potassium nitrate is not mutagenic in Salmonella typhimurium strains TA 1535, TA 1537, A 1538, TA 98, TA 100, and TA 92 with and without metabolic activation. No chromosomal aberrations were induced in a Chinese hamster fibroblast cell line without metabolic activation. In a study comparable to OECD guideline 479, no SCEs were induced in lymphocytes. In addition, an OECD guideline 476 and EC guideline B.17 study showed no effects on the thymidine kinase locus in L5178Y mouse lymphoma cells.

No in vivo studies are required, as all in vitro studies showed no genotoxicity.

#### **Carcinogenicity**

As Mixture: No data available.

-----

Potassium nitrate: Potassium nitrate is not genotoxic and no substance related neoplastic lesions were observed in the chronic toxicity study. There is no positive correlation between nitrate intakes and the incidence of cancer.

#### **Reproductive toxicity**

As Mixture: No data available.

-----

Potassium nitrate: Based on the results of a combined repeated dose toxicity study with a reproduction/developmental toxicity screening performed according to OECD 422 guideline and GLP principles, the NOAEL of potassium nitrate was found to be  $\geq 1,500$  mg/kg/day for developmental toxicity. According to Annex I of Regulation (EC) No. 1272/2008 potassium nitrate is not classified based on the available data

#### **Summary of evaluation of the CMR properties**

As Mixture: No data available.

-----

Potassium nitrate: No CMR Classification.

#### **STOT-single exposure**

As Mixture: No data available.

-----

Potassium nitrate: No STOT SE toxicity.

#### **STOT-repeated exposure**

As Mixture: No data available.

-----

Potassium nitrate: No STOTO RE Toxicity.

#### **Aspiration hazard**

As Mixture: No data available.

-----

Potassium nitrate: Not Applicable.

#### **Additional information**

As Mixture: No data available.

---

## SECTION 12: Ecological information

#### **Toxicity**

As Mixture: No data available.

# Safety Data Sheet

## Transport

-----

Potassium nitrate: Fish LC50>100 mg/L, NOEC 58mg/L  
Daphnia Magna EC50>100 mg/L

### **Persistence and degradability**

As Mixture: No data available.

-----

Potassium nitrate: Readily biodegradation study does not need to be conducted since the substance is an inorganic salt (Annex VII REACH). In addition, biodegradation of nitrate can occur under anaerobic conditions, both under natural conditions and as a controlled process in many wastewater treatment plants, resulting in degradation products like nitrite, oxide of nitrogen, nitrogen, or ammonia. Nitrate degradation is fastest in anaerobic conditions. In the anaerobic transformation of nitrate into N<sub>2</sub>, N<sub>2</sub>O and NH<sub>3</sub>, the biodegradation rate in wastewater plant at 20 degrees Celsius is 70 g N/kg dissolved solid/day.

### **Bioaccumulative potential**

As Mixture: No data available.

-----

Potassium nitrate: Simple inorganic salts with high aqueous solubility will exist in a dissociated form in an aqueous solution. Such a substance has a low potential for bioaccumulation.

### **Mobility in soil**

As Mixture: No data available.

-----

Potassium nitrate: No Data Available.

### **Results of PBT and vPvB assessment**

As Mixture: No data available.

-----

Potassium nitrate: No Data Available.

### **Other adverse effects**

No data available.

---

## **SECTION 13: Disposal considerations**

### **Disposal of the product**

Disposal should be in accordance with applicable Federal, State and local laws and regulations. Local regulations may be more stringent than State or Federal requirements.

### **Disposal of contaminated packaging**

Dispose of as unused product.

---

## **SECTION 14: Transport information**

### **DOT (US)**

Not dangerous goods

### **IMDG**

Not dangerous goods

### **IATA**

# Safety Data Sheet

## Transport

Not dangerous goods

---

### SECTION 15: Regulatory information

#### 15.1 Safety, health and environmental regulations specific for the product in question

##### **New Jersey Right To Know Components**

Common name: POTASSIUM NITRATE  
CAS number: 7757-79-1

##### **Pennsylvania Right To Know Components**

Chemical name: Nitric acid, potassium salt  
CAS number: 7757-79-1

##### **Canadian Domestic Substances List (DSL)**

Chemical name: Nitric acid potassium salt  
CAS: 7757-79-1

##### **SARA 302 Components**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

##### **SARA 313 Components**

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.

##### **SARA 311/312 Hazards**

No SARA Hazards

##### **Massachusetts Right To Know Components**

No components are subject to the Massachusetts Right to Know Act.

##### **Pennsylvania Right To Know Components**

Water  
CAS-No. 7732-18-5

##### **New Jersey Right To Know Components**

Water  
CAS-No. 7732-18-5

##### **California Prop. 65 Components**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

##### **Canadian Domestic Substances List (DSL)**

Chemical name: Water  
CAS: 7732-18-5

---

### SECTION 16: Other information



## **Safety Data Sheet**

### **Transport**

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall Tulsi Enterprises Ltd. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, whatsoever arising, even if Tulsi Enterprises Ltd. has been advised of the possibility of such damages.