

## MATERIAL SAFETY DATA SHEET

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**PRODUCT INFORMATION**

|                        |  |
|------------------------|--|
| Product Identifier     | <b>STIM-ROOT® 10000 LIQUID ROOTING HORMONE</b><br>(Registration No. 870114A) |
| Manufacturer's Name    | PLANT PRODUCTS CO. LTD.  |
| Address                | 314 ORENDA ROAD<br>BRAMPTON, ONTARIO<br>L6T 1G1                              |
| Emergency Phone Number | 1-613-996-6666   |
| Product Use            | ROOTING PROMOTER FOR CUTTINGS  |

**HAZARDOUS INGREDIENTS**

| Hazardous Ingredients           | C.A.S. / N.A. / UN No. | %    | LD <sub>50</sub> |
|---------------------------------|------------------------|------|------------------|
| ETHYL ALCOHOL                   | 64-17-5                | 42   | 7060 mg/kg       |
| METHANOL                        | 67-56-1                | 7.4  | 5628 mg/kg       |
| ETHYLENE GLYCOL MONOETHYL ETHER | 110-80-5               | 11.4 | 3000 mg/kg       |
| METHYL ETHYL KETONE (MEK)       | 78-93-1                | 0.26 | 2737 mg/kg       |

WHMIS CLASSIFICATION: CLASS D2, TOXIC MATERIAL; CLASS B2, FLAMMABLE LIQUID

**PHYSICAL DATA**

|                                 |        |                        |         |
|---------------------------------|--------|------------------------|---------|
| Physical State:                 | LIQUID | Odour and Appearance:  | ALCOHOL |
| Odour Threshold (ppm):          | ND     | Specific Gravity:      | ND      |
| Vapour Pressure (mmHg C 20° C): | ND     | Vapour Density (AM=1): | ND      |
| Evaporation Rate:               | ND     | Boiling Point:         | ND      |
| Freezing Point:                 | ND     | Density:               | ND      |

**FIRE AND EXPLOSION HAZARD**

Flammability: FLAMMABLE

Means of Extinction: CARBON DIOXIDE, DRY CHEMICAL OR ALCOHOL FOAM. WATER MAY BE INEFFECTIVE BUT SHOULD BE USED TO COOL FIRE-EXPOSED CONTAINERS AND STRUCTURES AND TO DISPERSE VAPOURS. WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING.

Flashpoint: 24° C T.O.C. UEL: NA LEL: NA

Auto-ignition Temperature: NA TDG Flammability Class: FLAMMABLE LIQUID

Hazardous Combustion Products: CARBON DIOXIDE, CARBON MONOXIDE

**REACTIVITY DATA**

Chemical Stability: STABLE

Incompatibility: IGNITION SOURCES, OXIDIZING AGENTS, STRONG ALKALIS.

Conditions of Reactivity:

Hazardous Decomposition Products: CARBON DIOXIDE OR CARBON MONOXIDE ON BURNING.

**TOXICOLOGICAL PROPERTIES**

Route of Entry:

Effects of Acute or Chronic Exposure:

SKIN CONTACT - REPEATED AND PROLONGED CONTACT MAY RESULT IN IRRITATION, DERMATITIS, ERYTHEMA, SCALING AND DRYING AND CAUSE ABSORPTION OF HARMFUL LEVELS OF METHANOL. (IRRITANT, PERMEATOR).

SKIN ABSORPTION - REPEATED EXPOSURE COULD CAUSE SYSTEMIC POISONING.

EYE CONTACT - IRRITATING. INFLAMMATION OF THE EYE IS CHARACTERIZED BY REDNESS, WATERING AND ITCHING. CAN CAUSE COLOUR BLINDNESS AND REVERSIBLE EYE DAMAGE (MILD TO MODERATE CONJUNCTIVITIS).

INHALATION - EXTREMELY HIGH LEVELS MAY CAUSE NARCOSIS, HEADACHE, NAUSEA, DIZZINESS, FAINTNESS, DROWSINESS, GIDDINESS AND LOSS OF CONSCIOUSNESS.

INGESTION - COULD CAUSE CENTRAL NERVOUS SYSTEM AND INTERNAL ORGAN DAMAGE AND MAY LEAD TO BLINDNESS AND DEATH. SYMPTOMS OF OVEREXPOSURE ARE HEADACHE, NAUSEA, VOMITING, BREATHING DIFFICULTIES, WEAKNESS, DIZZINESS FAINTNESS, DROWSINESS, DECREASED AWARENESS AND RESPONSIVENESS, EUPHORIA, ABDOMINAL DISCOMFORT, STAGGERING GAIT, LACK OF CO-ORDINATION AND COMA. REPEATED EXPOSURE AT HIGH LEVELS MAY CAUSE INJURY TO BONE MARROW, BLOOD CELLS, KIDNEY, LIVER AND TESTES.

Exposure Limits: ND Synergistic Products: ND

Sensitization / Irritancy: ND

Carcinogenicity / Teratogenicity / Mutagenicity / Reproductive Effects: IN LABORATORY INHALATION STUDIES, BIRTH DEFECTS, INCREASED FOETAL LETHALITY AND DELAYED FOETAL DEVELOPMENT HAVE BEEN OBSERVED IN OFFSPRING OF FEMALE ANIMALS EXPOSED DURING PREGNANCY TO LEVELS ABOVE 150 – 250 PPM OF ETHOXYETHANOL IN THE AIR. MEK HAS BEEN REPORTED TO BE EMBRYOTOXIC IN ONE ANIMAL STUDY. CONCENTRATION IN THIS PRODUCT IS SUFFICIENTLY LOW TO REDUCE THIS RISK TO A VERY LOW LEVEL.

**PREVENTIVE MEASURES:**

Personal Protective Equipment:

SKIN - BUTYL RUBBER GLOVES IF THERE IS SUSTAINED CONTACT.

INHALATION - RESPIRATOR WITH AN APPROVED ORGANIC VAPOUR CARTRIDGE.

EYES - GOGGLES TO PREVENT SPLASHING.

Engineering Controls: LOCAL EXHAUST PREFERRED USING EXPLOSION-PROOF EQUIPMENT.

Leak or Spill Procedure: ELIMINATE SOURCES OF IGNITION. PROVIDE ADEQUATE VENTILATION OR WEAR SCBA. SMALL SPILLS MAY BE FLUSHED WITH WATER. LARGER SPILLS SHOULD BE PUMPED INTO CONTAINERS FOR DISPOSAL.

**PREVENTIVE MEASURES (continued)**

Disposal: INCINERATE IN A FURNACE WHERE PERMITTED OR LANDFILL ABSORBED MATERIAL ACCORDING TO FEDERAL, PROVINCIAL AND LOCAL REGULATIONS.

Handling Procedures and Equipment: AVOID BREATHING VAPOURS. AVOID CONTACT WITH EYES AND SKIN. WASH EXPOSED SKIN THOROUGHLY AFTER HANDLING. EQUIPMENT SHOULD BE EXPLOSION-PROOF. KEEP CONTAINERS CLOSED. USE PROPERLY GROUNDED EQUIPMENT AND GOOD VENTILATION WHEN TRANSFERRING.

Storage Requirements: STORE IN A COOL, VENTILATED AREA AWAY FROM OXIDIZING AGENTS, HEAT AND SOURCES OF IGNITION.

Shipping Information:

|                        |  |                        |       |
|------------------------|--|------------------------|-------|
| <b>SHIPPING NAME –</b> | FLAMMABLE LIQUIDS, N.O.S. (ETHANOL, METHANOL)                          | <b>PACKING GROUP -</b> | III   |
| <b>UN NUMBER –</b>     | 1993   | <b>FLASHPOINT -</b>    | 24° C |
| <b>PLACARD –</b>       | 3 FLAMMABLE LIQUID<br>1L - EXEMPT, LIMITED QUANTITY<br>20L - REGULATED |                        |       |

**FIRST AID MEASURES:**

SKIN - REMOVE CONTAMINATED CLOTHING AND FLUSH SKIN WITH PLENTY OF WATER AND NON-ABBRASIVE SOAP FOR AT LEAST 20 MINUTES.

EYES - FLUSH WITH WATER IMMEDIATELY HOLDING THE EYELIDS OPEN AND CONTINUE FOR AT LEAST 20 MINUTES. CONTACT A PHYSICIAN IMMEDIATELY.

INHALATION - REMOVE VICTIM TO FRESH AIR. RESTORE BREATHING IF STOPPED AND ADMINISTER OXYGEN IF BREATHING IS DIFFICULT. CALL A PHYSICIAN IMMEDIATELY.

INGESTION - DO NOT INDUCE VOMITING. GIVE VICTIM ABOUT 250 mL WATER TO DILUTE MATERIAL IN STOMACH. IF VOMITING OCCURS NATURALLY, HAVE VICTIM LEAN FORWARD TO REDUCE RISK OF ASPIRATION.

**NOTE TO PHYSICIAN:** SIGNS AND SYMPTOMS OF METHANOL POISONING ARE NOT EVIDENT AND MAY BE DELAYED FOR UP TO 48 HOURS. TREATMENT MAY INCLUDE THE FOLLOWING: HEMODIALYSIS, THE INTRAVENOUS ADMINISTRATION OF ETHANOL (10 mL/hour) TO INTERFERE WITH THE METABOLISM OF METHANOL AND THE ADMINISTRATION OF BICARBONATE TO CORRECT ACIDOSIS. THIS PRODUCT ALSO CONTAINS ETHANOL (ETHYL ALCOHOL).

**PREPARATION INFORMATION**

|             |                |           |
|-------------|----------------|-----------|
| Department: | Phone Number:  | Date:     |
| TECHNICAL   | (905) 793-7000 | JUNE 2008 |

NA - Not Applicable  
 ND - Not Determined