

MATERIAL SAFETY DATA SHEET

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PRODUCT INFORMATION

Product Identifier	STIM-ROOT® 10000 LIQUID ROOTING HORMONE (Registration No. 870114A)
Manufacturer's Name	PLANT PRODUCTS CO. LTD.
Address	314 ORENDA ROAD BRAMPTON, ONTARIO 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 ₅₀
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:

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