

MATERIAL SAFETY DATA SHEET

SPROUT NIP EC (0313) (PCP 11575)

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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WHMIS#: 00060756
Index: GCD1480/13D
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Website: <http://www.brenntag.ca>

EMERGENCY TELEPHONE NUMBER (For Emergencies Involving Chemical Spills or Releases)

1 855 273 6824

PRODUCT IDENTIFICATION

Product Name: Sprout Nip EC (0313) (PCP 11575).
Chemical Name: Not applicable.
Synonyms: Not available.
Chemical Family: Blend.
Molecular Formula: Not applicable.
Product Use: Herbicide.

Canadian Pest Control Products (PCP) Act and Regulations Registration Number: 11575.

WHMIS Classification / Symbol:

B-2: Flammable Liquid
D-2B: Toxic (eye irritant)

This product is not a controlled product under WHMIS, and any WHMIS classification assigned to this product is putative and assigned for ease of product hazard communication only.

This product is registered under the Pest Control Products Act.



READ THE ENTIRE MSDS FOR THE COMPLETE HAZARD EVALUATION OF THIS PRODUCT.

2. COMPOSITION, INFORMATION ON INGREDIENTS (Not Intended As Specifications)

<i>Ingredient</i>	<i>CAS#</i>	<i>ACGIH TLV (TWA)</i>		<i>% Concentration</i>
Isopropyl 3-chlorocarbamate	101-21-3	---		15 - 40
Isopropanol	67-63-0	200 ppm	*A4	10 - 30

The identity of one or more of the ingredient(s) of this product have not been disclosed by our supplier(s) and we are not aware of any additional health hazards due to these ingredients, which are not already identified on this MSDS.

A4 = Not classifiable as a human carcinogen. (ACGIH-A4).

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:	Causes severe eye irritation. Vapours are extremely irritating to eyes and respiratory tract. Mists or sprays are irritating to eyes and respiratory tract. At elevated temperatures may cause irritation of the eyes and respiratory tract. See "Other Health Effects" Section. Flammable liquid and vapour. May cause flash fire or explosion. Can decompose at high temperatures forming toxic gases. Contents may develop pressure on prolonged exposure to heat.
POTENTIAL HEALTH EFFECTS	
Inhalation:	Contact with mist or spray may cause irritation of mucous membranes, coughing and difficulty in breathing. See "Other Health Effects" Section.
Skin Contact:	This product may cause mild, transient irritation. Skin contact can cause irritation, especially under the finger nails (and other confined spaces such as under rings or watch bands). May cause defatting, drying and cracking of the skin. Prolonged and repeated contact may lead to dermatitis.
Skin Absorption:	May be absorbed through intact skin.
Eye Contact:	Causes severe eye irritation. May cause corneal damage and conjunctivitis. Vapours from this product are irritating to the eyes.
Ingestion:	This product causes irritation, a burning sensation of the mouth and throat and abdominal pain.
Other Health Effects:	Effects (irritancy) on the skin and eyes may be delayed, and damage may occur without the sensation or onset of pain. Strict adherence to first aid measures following any exposure is essential. May cause central nervous system (CNS) depression, liver damage and kidney damage. CNS depression is characterized by headache, dizziness, drowsiness, nausea, vomiting and incoordination. Severe overexposures may lead to coma and possible death due to respiratory failure. Liver damage is characterized by the loss of appetite, jaundice (yellowish skin colour), and occasional pain in the upper left-hand side of the abdomen. Signs and symptoms of kidney damage generally progress from oliguria, to blood in the urine, to total renal failure.

4. FIRST AID MEASURES

FIRST AID PROCEDURES

Inhalation:	Move victim to fresh air. Give artificial respiration ONLY if breathing has stopped. Give cardiopulmonary resuscitation (CPR) if there is no breathing AND no pulse. Obtain medical attention IMMEDIATELY.
Skin Contact:	Start flushing while removing contaminated clothing. Wash affected areas thoroughly with soap and water. If irritation, redness, or a burning sensation develops and persists, obtain medical advice.
Eye Contact:	Immediately flush eyes with running water for a minimum of 20 minutes. Hold eyelids open during flushing. Take care not to rinse contaminated water into the unaffected eye or onto the face. If irritation persists, repeat flushing. Obtain medical attention IMMEDIATELY.
Ingestion:	Do not attempt to give anything by mouth to an unconscious person. If victim is alert and not convulsing, rinse mouth out and give 1/2 to 1 glass of water to dilute material. IMMEDIATELY contact local Poison Control Centre. Vomiting should only be induced under the direction of a physician or a poison control centre. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomitus, rinse mouth and administer more water. IMMEDIATELY transport victim to an emergency facility.
Note to Physicians:	This product contains materials that may cause severe pneumonitis if aspirated. If ingestion has occurred less than 2 hours earlier, carry out careful gastric lavage; use endotracheal cuff if available, to prevent aspiration. Observe patient for respiratory difficulty from aspiration pneumonitis. Give artificial resuscitation and appropriate chemotherapy if respiration is depressed. Isopropanol: Metabolism of isopropanol forms acetone, which may be detected in the urine and expired air. In contrast to diabetic acidosis, acidosis will occur in the absence of hyperglycemia. Haemodialysis should be considered in severe, acute intoxications. (3) Medical conditions that may be aggravated by exposure to this product include neurological and cardiovascular disorders, diseases of the skin, eyes or respiratory tract, preexisting liver and kidney disorders.

5. FIRE-FIGHTING MEASURES

Flashpoint (°C)	Autolignition Temperature (°C)	Flammability Limits in Air (%):	
		LEL	UEL
12. (Estimated)	399. (Estimated)	2. (Estimated)	12. (Estimated)
Flammability Class (WHMIS):	B-2: Flammable Liquid		
Hazardous Combustion Products:	Thermal decomposition products are toxic and may include isocyanates, phosgene, chlorine, oxides of carbon, oxides of nitrogen, and irritating gases.		
Unusual Fire or Explosion Hazards:	Vapours from this product are heavier than air, and may "travel" to a source of ignition (eg. pilot lights, heaters, electric motors) some distance away, and then "flash back" to the point of product discharge causing an explosion and fire. Closed containers exposed to heat may explode. Spilled material may cause floors and contact surfaces to become slippery.		
Sensitivity to Mechanical Impact:	Not expected to be sensitive to mechanical impact.		
Rate of Burning:	Not available.		
Explosive Power:	Not available.		
Sensitivity to Static Discharge:	Expected to be sensitive to static discharge when vapours are present between the lower and upper explosive limits.		
EXTINGUISHING MEDIA			
Fire Extinguishing Media:	Use carbon dioxide or dry chemical media for small fires. If only water is available, use it in the form of a fog. This material may produce a floating fire hazard in extreme fire conditions.		
FIRE FIGHTING INSTRUCTIONS			
Instructions to the Fire Fighters:	Use water spray to cool fire-exposed containers or structures. Use water spray to disperse vapours; re-ignition is possible. Isolate materials that are not involved in the fire and protect personnel. Cool containers with flooding quantities of water until well after the fire is out.		
Fire Fighting Protective Equipment:	Use self-contained breathing apparatus and protective clothing.		

6. ACCIDENTAL RELEASE MEASURES

Information in this section is for responding to spills, leaks or releases in order to prevent or minimize the adverse effects on persons, property and the environment. There may be specific reporting requirements associated with spills, leaks or releases, which change from region to region.

Containment and Clean-Up Procedures:	In all cases of leak or spill contact vendor at Emergency Number shown on the front page of this MSDS. Wear protective clothing. Do not use combustible materials such as sawdust as an absorbent. Eliminate all sources of ignition. Collect product for recovery or disposal. For release to land, or storm water runoff, contain discharge by constructing dykes or applying inert absorbent; for release to water, utilize damming and/or water diversion to minimize the spread of contamination. Ventilate enclosed spaces. Notify applicable government authority if release is reportable or could adversely affect the environment.
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7. HANDLING AND STORAGE

HANDLING

Handling Practices:	Ground and bond equipment and containers to prevent a static charge buildup. Use spark-resistant tools and avoid "splash-filling" of containers. Use normal "good" industrial hygiene and housekeeping practices. Containers exposed to heat may be under internal pressure. These should be cooled and carefully vented before opening. A face shield and apron should be worn. Vent container frequently, and more often in warm weather, to relieve pressure. Enforce NO SMOKING rules in area of use.
Ventilation Requirements:	Ventilation should be explosion proof.
Other Precautions:	Use only with adequate ventilation and avoid breathing vapours or mists. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. Wash contaminated clothing thoroughly before re-use. Do not use cutting or welding torches on empty drums that contained this material/product. Store wiping rags and similar material in metal cans with tight fitting lids.

STORAGE

Storage Temperature (°C):	See below.
Ventilation Requirements:	Ventilation should be explosion proof.

Storage Requirements: Store in a cool, well-ventilated area. Keep away from heat, sparks and flames. Keep containers closed. Do not expose sealed containers to temperatures above 40° C. Protect from direct sunlight. Protect against physical damage. Isopropanol can form unstable peroxides on prolonged exposure to air and heat.

Special Materials to be Used for Packaging or Containers: Confirm suitability of any material before using.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Recommendations listed in this section indicate the type of equipment, which will provide protection against overexposure to this product. Conditions of use, adequacy of engineering or other control measures, and actual exposures will dictate the need for specific protective devices at your workplace.

ENGINEERING CONTROLS

Engineering Controls: Local exhaust ventilation required. Ventilation should be explosion proof. Make up air should be supplied to balance air that is removed by local or general exhaust ventilation. Ventilate low lying areas such as sumps or pits where dense vapours may collect.

For personnel entry into confined spaces (i.e. bulk storage tanks) a proper procedure must be followed. It must include consideration of, among other things, ventilation, testing of tank atmosphere, provision and maintenance of SCBA, and emergency rescue. Use the "buddy" system. The second person should be in view and trained and equipped to execute a rescue. (6)

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Eye Protection: Safety glasses with side shields. Use full face-shield or chemical safety goggles when there is potential for contact. Contact lenses should not be worn when working with this material.

Skin Protection: Prior to use, user should confirm impermeability. Discard contaminated gloves.

Respiratory Protection: No specific guidelines available. A NIOSH/MSHA-approved air-purifying respirator equipped with pesticide cartridges for concentrations up to 5 mg/m³. A NIOSH/MSHA-approved air-supplied respirator for concentrations above 50 mg/m³. (6) A NIOSH/MSHA-approved full facepiece air-supplied respirator required for any concentration.

If while wearing a respiratory protection, you can smell, taste or otherwise detect anything unusual, or in the case of a full facepiece respirator you experience eye irritation, leave the area immediately. Check to make sure the respirator to face seal is still good. If it is, replace the filter, cartridge or canister. If the seal is no longer good, you may need a new respirator. (6)

Other Personal Protective Equipment: Wear appropriate skin, eye and respiratory equipment. Include a portable eyewash bottle as part of in-field equipment. Wash hands thoroughly before eating or smoking. Take all precautions to avoid personal contact.

Isopropyl 3-chlorocarbaniolate: LC50 (4-hour) values for this product range from 1.68 to 3.40 mg/L for rats. As exposure values have not been established, these comments are offered as guidelines only. Average exposure over an eight hour day: 5 mg/m³. (6)

EXPOSURE GUIDELINES

SUBSTANCE	ACGIH TLV (STEL)	OSHA PEL		NIOSH REL	
		(TWA)	(STEL)	(TWA)	(STEL)
Isopropanol	400 ppm	400 ppm	---	400 ppm	500 ppm

9. PHYSICAL AND CHEMICAL PROPERTIES (Not intended as Specifications)

Physical State: Liquid.

Appearance: Yellow, honey-coloured liquid.

Odour: Aromatic odour.

Odour Threshold (ppm): Not available.

Boiling Range (°C): 82 - 100

Melting/Freezing Point (°C): Not available.

Vapour Pressure (mm Hg at 20° C): 5.

Vapour Density (Air = 1.0): > 1.0.

Relative Density (g/cc): 1.0 - 1.1.

Bulk Density: Not available.

Viscosity:	Not available.
Evaporation Rate (Butyl Acetate = 1.0):	Not available.
Solubility:	Miscible in water.
% Volatile by Volume:	Not available.
pH:	Not available.
Coefficient of Water/Oil Distribution:	Not available.
Volatile Organic Compounds (VOC):	Not available.
Flashpoint (°C):	12. (Estimated)

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY

Under Normal Conditions:	Stable.
Under Fire Conditions:	Flammable.
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	High temperatures, sparks, open flames and all other sources of ignition. Isopropanol can form unstable peroxides on prolonged exposure to air and heat.
Materials to Avoid:	Strong oxidizing and reducing agents. Strong acids. Strong bases. Mixtures or reactions of alcohols with the following materials may cause explosions: barium perchlorate, chlorine, hypochlorous acid, ethylene oxide, hexamethylene diisocyanate and other isocyanates, nitrogen tetroxide, permonosulfuric acid and tri-isobutyl aluminum. (4)
Decomposition or Combustion Products:	Thermal decomposition products are toxic and may include isocyanates, phosgene, chlorine, oxides of carbon, oxides of nitrogen, and irritating gases.

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL DATA:

SUBSTANCE	LD50 (Oral, Rat)	LD50 (Dermal, Rabbit)	LC50 (Inhalation, Rat, 4h)
Isopropyl 3-chlorocarbanilate	1 200 - 4 200 mg/kg (1, 3)	> 2 000 mg/kg (3)	> 476 mg/m ³ (3)
Isopropanol	4 700 - 5 800 mg/kg (1, 3)	12 000 - 13 000 mg/kg (1, 3)	>20 000 ppm (3)
Carcinogenicity Data:	Isopropyl 3-chlorocarbanilate: Not Classifiable as to Carcinogenicity to Humans (IARC-3). (5)		
Reproductive Data:	May cause reproductive effects based on studies in laboratory animals. See "Other Studies Relevant to Material".		
Mutagenicity Data:	No adverse mutagenic effects are anticipated.		
Teratogenicity Data:	No adverse teratogenic effects are anticipated.		
Respiratory / Skin Sensitization Data:	A female worker who had been occupationally exposed to commercial Isopropanol, demonstrated a positive reaction when closed patch tested with chemically pure Isopropanol in concentrations from 2.5% to 99%. Past medical history indicated that she had previously had a slight case of eczema. (4)		
Synergistic Materials:	Alcohols may interact synergistically with chlorinated solvents (example - carbon tetrachloride, chloroform, bromotrichloromethane), dithiocarbamates (example - disulfiram), dimethylnitrosamine and thioacetamide. (6)		
Other Studies Relevant to Material:	Isopropanol: An indication of reduced mating performance in second generation male rats was noted at oral doses of 1 000 mg/kg/day in a two-generation reproductive study. Increased neonatal mortality was also seen at doses of 500 mg/kg/day and greater in this study. (3)		

12. ECOLOGICAL INFORMATION

Ecotoxicity:	<p>May be harmful to aquatic life.</p> <p>Isopropyl 3-chlorocarbanilate: 24-hour LC50 (Daphnia Magna) = 8.20 ppm (3) 96-hour LC50 (Carp) = 11.3 ppm (3) 72-hour EC50 (Algae) = 1.1 mg/l (3)</p> <p>Isopropanol: 96-hour LC50 (Pimephales promelas) = 9 640 - 10 400 mg/l (3) 48-hour EC50 (Daphnia magna) = 7 550 - 13 299 mg/l (3)</p>
Environmental Fate:	<p>Can be dangerous if allowed to enter drinking water intakes. Do not contaminate domestic or irrigation water supplies, lakes, streams, ponds, or rivers.</p> <p>Isopropyl 3-chlorocarbanilate: CIPC adsorbs strongly to soil and clays and will exhibit low mobility in soil. In soil, CIPC is transformed primarily by biodegradation. The half-life of CIPC from field soil is about 30 days. If released in the water, CIPC will adsorb strongly to sediment and particulate matter in the water column. Although a slow process, biodegradation should be the major pathway for degradation. Loss of CIPC due to hydrolysis, photolysis and volatilization should not be important loss processes. CIPC will not bioconcentrate in aquatic organisms. In the atmosphere, CIPC will react with hydroxyl radicals with and estimated half-life of 5.5 hours. Partial removal of atmospheric CIPC will also occur by dry and wet deposition. (4)</p>

13. DISPOSAL CONSIDERATIONS

Deactivating Chemicals:	None required.
Waste Disposal Methods:	Dispose of waste material at an approved (hazardous) waste treatment/disposal facility in accordance with applicable local, provincial and federal regulations. Do not dispose of waste with normal garbage, or to sewer systems. Reevaluation of the product may be required by the user at the time of disposal since the product uses, transformations, mixtures and processes may influence waste classification.
Safe Handling of Residues:	See "Waste Disposal Methods".
Disposal of Packaging:	Empty containers retain product residue (liquid and/or vapour) and can be dangerous. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. Do not expose such containers to heat, flame, sparks, static electricity, or other sources of ignition; they may explode and cause injury or death. Do not dispose of package until thoroughly washed out.

14. TRANSPORTATION INFORMATION

CANADIAN TDG ACT SHIPPING DESCRIPTION:

FLAMMABLE LIQUID, N.O.S. (Isopropanol), Class 3, UN1993, PG II.

Label(s): Flammable Liquids. Placard: Flammable Liquids.

ERAP Index: ----- Exemptions: None known.

US DOT CLASSIFICATION (49CFR 172.101, 172.102):

FLAMMABLE LIQUID, N.O.S. (Isopropanol), Class 3, UN1993, PG II.

Label(s): Flammable Liquid. Placard: Flammable Liquid.

CERCLA-RQ: Not applicable. Exemptions: Not applicable.

15. REGULATORY INFORMATION

CANADA

CEPA - NSNR: Exempt. This product is covered by the Pest Control Products Act.

CEPA - NPRI: Isopropanol.

Controlled Products Regulations Classification (WHMIS):

B-2: Flammable Liquid

D-2B: Toxic (eye irritant)

This product is not a controlled product under WHMIS, and any WHMIS classification assigned to this product is putative and assigned for ease of product hazard communication only.

This product is registered under the Pest Control Products Act.

USA

Environmental Protection Act: Not available.

OSHA HCS (29CFR 1910.1200): Not available.

NFPA: 1 Health, 3 Fire, 0 Reactivity (6)

HMIS: 1 Health, 3 Fire, 0 Reactivity (6)

INTERNATIONAL

Not available.

16. OTHER INFORMATION

ADDITIONAL INFORMATION

Maximum Residue Limit (MRL):

The Canadian MRL for chlorpropham is 15 ppm when applied to potatoes.

This value is current as a listing of Canadian MRLs published on 2010 October 1.

REFERENCES

1. RTECS-Registry of Toxic Effects of Chemical Substances, Canadian Centre for Occupational Health and Safety RTECS database.
2. Clayton, G.D. and Clayton, F.E., Eds., Patty's Industrial Hygiene and Toxicology, 3rd ed., Vol. IIA,B,C, John Wiley and Sons, New York, 1981.
3. Supplier's Material Safety Data Sheet(s).
4. CHEMINFO chemical profile, Canadian Centre for Occupational Health and Safety, Hamilton, Ontario, Canada.
5. Guide to Occupational Exposure Values, 2011, American Conference of Governmental Industrial Hygienists, Cincinnati, 2011.
6. Regulatory Affairs Group, Brenntag Canada Inc.
7. The British Columbia Drug and Poison Information Centre, Poison Managements Manual, Canadian Pharmaceutical Association, Ottawa, 1981.
8. NFPA 325M Fire Hazard Properties of Flammable Liquids, Gases, and Volatile Solids, 1994 Edition, Quincy, MA, 1994.

The information contained herein is offered only as a guide to the handling of this specific material and has been prepared in good faith by technically knowledgeable personnel. It is not intended to be all-inclusive and the manner and conditions of use and handling may involve other and additional considerations. No warranty of any kind is given or implied and Brenntag Canada Inc. will not be liable for any damages, losses, injuries or consequential damages which may result from the use of or reliance on any information contained herein. This Material Safety Data Sheet is valid for three years.

To obtain revised copies of this or other Material Safety Data Sheets, contact your nearest Brenntag Canada Regional office.

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