

MATERIAL SAFETY DATA SHEET

SPROUT NIP EC (0313) (PCP 11575), LIQUID

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Brenntag Canada Inc.
43 Jutland Rd.
Toronto, ON
M8Z 2G6
(416) 259-8231

WHMIS#: 00060756
Index: GCD1480/07D
Effective Date: 2007 November 12
Date of Revision: 2007 November 12

Website: <http://www.brenntag.ca>

EMERGENCY TELEPHONE NUMBERS (FOR EMERGENCIES INVOLVING CHEMICAL SPILLS OR RELEASE)

Toronto, ON (416) 226-6117
Edmonton, AB (780) 424-1754

Montreal, QC (514) 861-1211
Calgary, AB (403) 263-8660

Winnipeg, MB (204) 943-8827
Vancouver, BC (604) 685-5036

PRODUCT IDENTIFICATION

Product Name: Sprout Nip EC (0313) (PCP 11575), Liquid.
Chemical Name: Not applicable.
Synonyms: Not applicable.
Chemical Family: Carbanilate - hydrocarbon 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 (skin and eye irritant)



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</i>		<i>% Concentration</i>
Isopropyl 3-Chloro-Carbanilate	101-21-3	---		30 - 40
Isopropanol	67-63-0	200 ppm	*A4	10 - 20

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

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Causes skin and eye irritation. At elevated temperatures may cause irritation of the eyes and respiratory tract. High vapour concentrations may cause drowsiness. 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:	May cause defatting, drying and cracking of the skin. Prolonged and repeated contact may lead to dermatitis. Skin contact can cause irritation, especially under the finger nails (and other confined spaces such as under rings or watch bands).
Skin Absorption:	May be absorbed through intact skin.
Eye Contact:	Splashes to the eye may cause irritation, redness and pain. 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.
	Isopropyl 3-Chlorocarbamate (CIPC) : Diarrhea, nausea, vomiting, abdominal pain, profuse sweating, salivation, blurred vision, laboured breathing, tremor, muscle twitching, muscular incoordination and headache are frequently reported symptoms of Carbamate poisoning. Severe poisonings may result in respiratory depression, pulmonary oedema and convulsions. Pulmonary oedema is the build-up of fluid in the lungs that might be fatal. Symptoms of pulmonary oedema, such as shortness of breath, may not appear until several hours after exposure and are aggravated by physical exertion. (4)

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:	Flush skin with running water and wash affected areas thoroughly with soap and water. Start flushing while removing contaminated clothing. Obtain medical attention IMMEDIATELY.
Eye Contact:	Immediately flush eyes with running water for a minimum of 20 minutes. Hold eyelids open during flushing. 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, cardiovascular and skin disorders, diseases of the skin, eyes or respiratory tract.

5. FIRE-FIGHTING MEASURES

<i>Flashpoint</i> (°C)	<i>Autolgnition Temperature</i> (°C)	Flammability Limits in Air (%)	
		<i>LEL</i>	<i>UEL</i>
14 (Estimated)	399 (Estimated)	2.0 (Estimated)	12.0 (Estimated)
Flammability Class (WHMIS):	B-2: Flammable Liquid		
Hazardous Combustion Products:	Thermal decomposition products are toxic and may include Isocyanates, chlorine, phosgene, oxides of carbon, 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.

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: See Section 8, "Engineering Controls".

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.

Special Materials to be Used for Packaging or Containers: Aluminum and its alloys should not be used in equipment for storage, handling or transportation. 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. (4)

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Eye Protection: 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: Gloves and protective clothing made from nitrile rubber, neoprene, butyl rubber or viton should be impervious under conditions of use. Discard contaminated gloves. Prior to use, user should confirm impermeability.

Respiratory Protection: No specific guidelines available. Do not use compressed oxygen in hydrocarbon atmospheres. A NIOSH/MSHA-approved air-purifying respirator equipped with pesticide cartridges for concentrations up to 50 mg/m³ CIPC. An air-supplied respirator if concentrations are higher or unknown.

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. (4)

Other Personal Protective Equipment: Wear an impermeable apron and boots. Locate safety shower and eyewash station close to chemical handling area. Take all precautions to avoid personal contact. Clothing and footwear that is fire retardant and dissipates static electrical charges should be worn when handling flammable materials. Natural fibers (cotton, wool, leather and linen) should be selected in favour of synthetic materials (rayon, nylon and polyester).

EXPOSURE GUIDELINES

SUBSTANCE	ACGIH TLV	OSHA PEL		NIOSH REL	
	(STEL)	(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:	1 000 - 1 100 mg/kg.
Viscosity:	Not available.
Evaporation Rate (Butyl Acetate = 1.0):	Not available.
Solubility:	Miscible in water.
% Volatile by Volume:	10 - 15.
pH:	Not available.
Coefficient of Water/Oil Distribution:	Not available.
Volatile Organic Compounds (VOC):	10 - 15.

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.
Materials to Avoid:	Strong oxidizing and reducing agents. Lewis or mineral acids. Strong Alkalies. Strong bases. Aluminum and its alloys. 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, chlorine, phosgene, oxides of carbon, nitrogen and irritating gases.

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL DATA:

SUBSTANCE	LD50 (Oral, Rat)	LD50 (Dermal, Rabbit)	LC50 (Inhalation, Rat, 4h)
Isopropyl 3-Chloro-Carbanilate	1 200 - 7 000 mg/kg (1, 3)	---	---
Isopropanol	4 420 - 5 840 mg/kg (1,3)	6 291- 12 900 mg/kg (1,3)	12 000 ppm (3)
Carcinogenicity Data:	The ingredient(s) of this product is (are) not classed as carcinogenic by ACGIH, IARC, OSHA or NTP. See "Other Studies Relevant to Material".		
Reproductive Data:	Not available. No adverse reproductive effects are anticipated.		
Mutagenicity Data:	Not available. No adverse mutagenic effects are anticipated.		
Teratogenicity Data:	Not available. No adverse teratogenic effects are anticipated.		
Respiratory / Skin Sensitization Data:	None known.		
Synergistic Materials:	Alcohols may interact synergistically with chlorinated solvents (example - carbon tetrachloride, chloroform, bromotrichloromethane), dithiocarbamates (example - disulfiram), dimethylnitrosamine and thioacetamide. (4)		
Other Studies Relevant to Material:	<p>Isopropyl 3-Chlorocarbanilate (CIPC) : Incidences were not significantly greater for any tumor type when mice were fed CIPC from 7 days of age. The overall evaluation from IARC is that of Group 3: The agent is not classifiable as to its carcinogenicity in humans. (4)</p> <p>Single oral toxic doses of CIPC was fed to lab animals. Initial symptoms included listlessness, ataxia which progressed to hyperthermia and death. Degenerative changes in the kidney and liver. (4)</p> <p>CIPC did not cause point mutations with 8 histidine-requiring mutants of salmonella typhimurium. No increase over background findings was noted for CIPC at full strength as a diluted solution in mutagenic tests with and without activation. (4)</p> <p>CIPC does not meet WHMIS criteria to be classified as a carcinogen, mutagen or teratogen. Data is insufficient to further classify according to WHMIS criteria.</p> <p>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)</p>		

12. ECOLOGICAL INFORMATION

Ecotoxicity:	Not available. May be harmful to aquatic life.
	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)

Environmental Fate:	Not available. Can be dangerous if allowed to enter drinking water intakes. Do not contaminate domestic or irrigation water supplies, lakes, streams, ponds, or rivers.
	Isopropyl 3-Chlorocarbamate (CIPC) : 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 an estimated half-life of 5.5 hours. Partial removal of atmospheric CIPC will also occur by dry and wet deposition. (4)

13. DISPOSAL CONSIDERATIONS

Deactivating Chemicals:	None required.
Waste Disposal Methods:	This information applies to the material as manufactured. 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 and can be hazardous. 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 available. Exemptions: None known.

15. REGULATORY INFORMATION

CANADA

CEPA - NSNR: All constituents of this product are included on the DSL.

CEPA - NPRI: Isopropanol.

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

Controlled Products Regulations Classification (WHMIS):

B-2: Flammable Liquid

D-2B: Toxic (skin and eye irritant)

USA

Environmental Protection Act: All constituents of this product are included on the TSCA inventory.

OSHA HCS (29CFR 1910.1200): Flammable Liquid, Skin and Eye Irritant.

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

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

INTERNATIONAL

Not available.

16. OTHER INFORMATION

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, through "CCINFODisc", Canadian Centre for Occupational Health and Safety, Hamilton, Ontario, Canada.
5. Guide to Occupational Exposure Values, 2005, American Conference of Governmental Industrial Hygienists, Cincinnati, 2005.
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.

British Columbia: 20333-102B Avenue, Langley, BC, V1M 3H1
Phone: (604) 513-9009 Facsimile: (604) 513-9010

Alberta: 6628 - 45 th. Street, Leduc, AB, T9E 7C9
Phone: (780) 986-4544 Facsimile: (780) 986-1070

Manitoba: 681 Plinquet Street, Winnipeg, MB, R2J 2X2
Phone: (204) 233-3416 Facsimile: (204) 233-7005

Ontario: 43 Jutland Road, Toronto, ON, M8Z 2G6
Phone: (416) 259-8231 Facsimile: (416) 259-5333

Quebec: 2900 Jean Baptiste Des., Lachine, PQ, H8T 1C8
Phone: (514) 636-9230 Facsimile: (514) 636-0877

Atlantic: A-105 Akerley Boulevard, Dartmouth, NS, B3B 1R7
Phone: (902) 468-9690 Facsimile: (902) 468-3085

Prepared By: Regulatory Affairs Group, Brenntag Canada Inc., (416) 259-8231.