

MATERIAL SAFETY DATA SHEET

Forms published by ChemSW (707)864-0845

Section 1. Chemical Product and Company Identification

Product Name Dip'n'Grow Liquid Rooting Concentrate	
Manufacturer's Name Dip'n'Grow, Inc	Emergency Telephone Number 800-424-9300
Address (Number, Street, City, State, and ZIP Code) 15140 SE 82nd Drive	Telephone Number For Information 866-347-6476
Post Office Box 1888	Date Prepared 12/10/2009
Clackamas, OR 97015-1888	Signature of Preparer (optional) LB Garrison

Section 2. Composition / Information on Ingredients

Component	CAS Registry #	wt. %	Exposure Limits	
			NIOSH/ OSHA TWA	OSHA IDLH
Ethyl Alcohol	64-17-5		1,000 ppm	3,300 ppm
Isopropyl Alcohol	67-63-0		400 ppm	2,000 ppm
Indole-3-butyric acid	133-32-4		unknown	
Napthaleneacetic acid	86-87-3		unknown	
NFPA rating: Health: 2 Flamm: 3 React: 0				

Section 3. Hazards Identification

EMERGENCY OVERVIEW

WARNING! FLAMMABLE LIQUID AND VAPOR. HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO EYES AND RESPIRATORY TRACT. AFFECTS CENTRAL NERVOUS SYSTEM. MAY BE HARMFUL IF ABSORBED THROUGH SKIN. MAY CAUSE IRRITATION TO SKIN.

POTENTIAL HEALTH EFFECTS:

EYE CONTACT: Vapors cause eye irritation. Splashes cause severe irritation, possible corneal burns and eye damage.

INHALATION: Inhalation of vapors irritates the respiratory tract. Exposure to high concentrations has a narcotic effect, producing symptoms of dizziness, drowsiness, headache, staggering, unconsciousness and possibly death.

SKIN CONTACT: May cause irritation with redness and pain. May be absorbed through the skin with possible systemic effects

INGESTION: Can cause drowsiness, unconsciousness, and death. Gastrointestinal pain, cramps, nausea, vomiting, and diarrhea may also result.

CHRONIC EFFECTS / CARCINOGENICITY: Chronic exposure may cause skin effects. Persons with pre-existing skin disorders or impaired liver, kidney, or pulmonary function may be more susceptible to the effects of this agent.

TERATOLOGY (BIRTH DEFECT) INFORMATION: Not available.

REPRODUCTION INFORMATION: Not available.

Section 4. First Aid Measures

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

SKIN CONTACT: Immediately flush skin with plenty of water for at least 15 minutes. Call a physician if irritation develops.

INGESTION: Give large amounts of water to drink. Never give anything by mouth to an unconscious person. Get medical attention.

Section 5. Fire Fighting Measures

FLAMMABLE PROPERTIES:

FLASH POINT: 22 deg. C (72 deg. F)

METHOD USED: EPA 1020, Closed Cup

FLAMMABLE LIMITS

LFL: Isopropanol 2.0%
Ethanol 3.3 %

UFL: Isopropanol 12.7%
Ethanol 19%

EXTINGUISHING MEDIA: Water spray, dry chemical, alcohol foam, or carbon dioxide. Water spray may be used to keep fire exposed containers cool, dilute spills to nonflammable mixtures, protect personnel attempting to stop leak and disperse vapors.

FIRE & EXPLOSION HAZARDS: Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Contact with strong oxidizers may cause fire or explosion. Vapors can flow along surfaces to distant ignition source and flash back. Sensitive to static discharge.

FIRE FIGHTING INSTRUCTIONS: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

FIRE FIGHTING EQUIPMENT: N/A

Section 6. Accidental Release Measures

Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer! If a leak or spill has not ignited, use water spray to disperse the vapors, to protect personnel attempting to stop leak, and to flush spills away from exposures.

Section 7. Handling and Storage

Protect against physical damage. Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Separate from incompatibles. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment, including explosion proof ventilation. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product. Small quantities of peroxides can form on prolonged storage. Exposure to light and/or air significantly increases the rate of peroxide formation. If evaporated to a residue, the mixture of peroxides and isopropanol may explode when exposed to heat or shock.

Section 8. Exposure Controls / Personal Protection

ENGINEERING CONTROLS :

Airborne Exposure Limits:

For Isopropyl Alcohol (2-Propanol):

-OSHA Permissible Exposure Limit (PEL): 400 ppm (TWA)

-ACGIH Threshold Limit Value (TLV):

200 ppm (TWA), 400 ppm (STEL), A4 - not classifiable as a human carcinogen.

Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.

Personal Respirators (NIOSH Approved):

If the exposure limit is exceeded, a full facepiece respirator with organic vapor cartridge may be worn up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. **WARNING:** Air purifying respirators do not protect workers in oxygen-deficient atmospheres.

RESPIRATORY PROTECTION :

Personal Respirators (NIOSH Approved):

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SKIN PROTECTION :

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Neoprene and nitrile rubber are recommended materials.

EYE PROTECTION :

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

EXPOSURE GUIDELINE (S):Not available.

Section 9. Physical and chemical Properties

APPEARANCE:	Clear, amber liquid.	PHYSICAL STATE:	Liquid.
BOILING POINT:	82 Deg.C (179 deg. F)	SOLUBILITY IN WATER:	Appreciable.
EVAPORATION RATE:	N/A	SPECIFIC GRAVITY:	0.85water=1
FREEZING POINT:	N/A	VAPOR DENSITY:	N/A Air=1
MELTING POINT:	N/A	VAPOR PRESSURE:	44 mm Hg Ethanol 33 mm Hg Isoprop.
MOLECULAR WEIGHT:	Not available.	VISCOSITY:	N/A
ODOR:	slight	% VOLATILE:	N/A
pH:	N/A		

Section 10. Stability and Reactivity

CHEMICAL STABILITY: Stable.

INCOMPATIBILITY:Heat, open flame, sparks.

HAZARDOUS DECOMPOSITION PRODUCTS:CO₂, CO (Carbon dioxide and carbon monoxide).

HAZARDOUS POLYMERIZATION: Will not occur.

Section 11. Toxicological Information

EYE: Irritant.

SKIN: Irritant.

INGESTION: Oral rat LD50: 5045 mg/kg; skin rabbit LD50: 12.8 gm/kg; inhalation rat LC50: 16,000 ppm/8-hour; investigated as a tumorigen, mutagen, reproductive effector.

INHALATION: Hazardous in case of inhalation.

SUBCHRONIC: Not Available.

CHRONIC / CARCINOGENICITY :

Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
Isopropyl Alcohol	No	No	3
Ethyl alcohol	No	No	3

TERATOLOGY: Not available.

REPRODUCTION: Not Available.

MUTAGENICITY: Not Available

SENSITIZATION: Not Available.

Section 12. Ecological Information

ECOTOXICOLOGICAL INFORMATION :

When released into the soil, this material is expected to quickly evaporate. When released into the soil, this material may leach into groundwater. When released into the soil, this material may biodegrade to a moderate extent. When released to water, this material is expected to quickly evaporate. When released into the water, this material is expected to have a half-life between 1 and 10 days. When released into water, this material may biodegrade to a moderate extent. This material is not expected to significantly bioaccumulate. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material is expected to have a half-life between 1 and 10 days. When released into the air, this material may be removed from the atmosphere to a moderate extent by wet deposition.

Environmental Toxicity:

The LC50/96-hour values for fish are over 100 mg/l. This material is not expected to be toxic to aquatic life.

DISTRIBUTION: Not Available.

CHEMICAL FATE INFORMATION: Not Available.

Section 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved incinerator or disposed in a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

Section 14. Transport Information (Not meant to be all inclusive)

D.O.T. SHIPPING NAME: Flammable liquid, NOS

TECHNICAL SHIPPING NAME: (Isopropanol, ethanol)
D.O.T. HAZARD CLASS: Flammable, 3
U.N. / N.A. NUMBER: UN 1987, PG II
PRODUCT RQ (LBS): N/A
D.O.T. LABEL: N/A
D.O.T. PLACARD: 3, Flammable
FREIGHT CLASS BULK: N/A
FREIGHT CLASS PACKAGE: 1 Liter or less may be shipped ORM-D, where allowed.
PRODUCT LABEL: N/A

Section 15. Regulatory Information (Not meant to be all inclusive - selected regulation represented)

OSHA STATUS: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)

-----\Chemical Inventory Status - Part 1\-----

Ingredient	TSCA	EC	Japan	Australia
Isopropyl Alcohol (67-63-0)	Yes	Yes	Yes	Yes
Ethanol (64-17-5)	Yes	Yes	Yes	Yes

-----\Chemical Inventory Status - Part 2\-----

Ingredient	Korea	--Canada--		
		DSL	NDSL	Phil.
Isopropyl Alcohol (67-63-0)	Yes	Yes	No	Yes
Ethanol (64-17-5)	Yes	Yes	No	Yes

-----\Federal, State & International Regulations - Part 1\-----

Ingredient	-SARA 302-		-----SARA 313-----	
	RQ	TPQ	List	Chemical Catg.
Isopropyl Alcohol (67-63-0)	No	No	Yes	No
Ethanol (67-17-5)	No	No	Yes	No

-----\Federal, State & International Regulations - Part 2\-----

Ingredient	CERCLA	-RCRA-		-TSCA-
		261.33		8(d)
Isopropyl Alcohol (67-63-0)	No	No	No	No
Ethanol (67-17-5)	No	No	No	No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: Yes
 SARA 311/312: Acute: Yes Chronic: Yes Fire: Yes Pressure: No
 Reactivity: No (Mixture / Liquid)

Section 16. Other Information

NFPA Ratings:**Health: 1 Flammability: 3 Reactivity: 0**

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Keep away from heat, sparks and flame.

Keep container closed.

Use only with adequate ventilation.

Wash thoroughly after handling.

Avoid breathing vapor or mist.

Avoid contact with eyes, skin and clothing.

If swallowed, give large amounts of water to drink. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. In all cases, get medical attention.

MSDS STATUS: Prepared 12/10/2009 lbg.

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Dip'n'Grow, Inc. shall not be held liable for any damages resulting from handling or from contact with the above product.