

Material Safety Data Sheet
January 1, 2002

Chemical Name : **K-L-N Concentrate**
 Formula : Mixture (see Section 3: Ingredients)
 Trade Name/Synonym : **Dyna-Gro K-L-N Concentrate**
 CAS Number (s) : Mixture (see Section 3: Ingredients)

Section 1: Manufacturer or Supplier

Dyna-Gro Nutrition Solutions, 1065 Broadway, San Pablo, CA 94806, Emergency Number (510) 233-0254

Section 2: Hazardous Ingredients

Contains no hazardous mixtures

Section 3: Physical Data & Ingredients

Physical State at STP : Liquid	Percent Volatile : N/A
Boiling Point : 212 F	Vapor Pressure : 0.22 mm/Hg
Specific Gravity : 1.03	Solubility in Water ... : Miscible
Vapor Density : 13.3	Melting Point : 32.0 F
Evaporation Rate : N/A	Appearance & Odor ... : Clear odorless liquid

Ingredient	Formula	—%—	CAS#	Exposure limits in air: ACGIH TLV: OSHA PEL
1-Naphthalene acetic Acid	C ₁₀ H ₇ CH ₂ COOH	<1%	86-87-3	Not Established
3-Indole Butyric Acid	C ₁₂ H ₁₃ NO ₂	<1%	133-32-4	Not Established

Section 4: Fire & Explosion Hazard Data

Flash Point : Non Flammable
 Auto-Ignition Temp. (Lower) : N/A
 Auto-Ignition Temp. (Upper) : N/A
 Flammable Limits in Air : N/A
 Extinguishing Media to Use : Dry Chemicals, CO₂, Water or Water Base Foam
 Special Fire Fighting Equipment : Wear protective clothing & breathing unit
 Unusual Fire & Explosion Risk : None

Section 5: Health Hazard Data

Effects of Over-Exposure:
 Prolonged contact with skin may cause irritation. Contact with eyes and respiratory tract may cause irritation. If swallowed, may cause distress, cramping, vomiting and hypertension.

Health Effects or Risks from Exposure:
 Acute: Burns to skin, eyes and nasal passages, cramps and vomiting if swallowed.
 Chronic: Irritation to skin and mucus membranes.

Section 5: Health Hazard Data---continued

Emergency First Aid:

If Swallowed: Drink large amounts of water. Call a physician.

Skin Exposure: Flush with plenty of water.

Eye Exposure: Immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

If Inhaled: Remove to fresh air. Call a physician.

Section 6: Reactivity Hazard Data

Suspected Cancer Agent : Not a carcinogen.

Conditions to Avoid : Skin & eye contact, do not breathe, do not drink.

Stability : Stable

Hazardous Polymerization : Polymerization will not occur.

Hazardous Decomposition : Decomposition will not occur.

Incompatibility : None known

Section 7: Spill or Leak Procedures

Steps to take if spill occurs: Flush with hose or mop up and dispose of according to local, state and federal regulations.

Waste Disposal Method: Dispose of all waste according to local, state and federal regulations. Mix with water and dispose of in approved landfill.

Section 8: Special Protection Information

Respiratory Protection : Self-contained breathing apparatus

Ventilation : Local and mechanical

Eye Protection : Safety goggles

Protective Gloves : Rubber

Other Protective Equipment : Non-absorbent clothing and rubber boots.

Section 9: Special Precautions

Do Not Drink, get in eyes, on skin or on clothing. Avoid breathing vapor. Keep in tightly closed container. Loosen container cautiously. Wash thoroughly with soap and water after handling. Store .

The information contained herein is provided in good faith and is believed to be correct and equivalent to OSHA Form 20, as of the date hereof, but is issued without guarantee. Since conditions of use are beyond our control, user assumes all responsibility and risk.

Material Safety Data Sheet
March 1, 2002

Chemical Name : **Mixed Liquid Specialty Fertilizer**
 Formula : Mixture (see Section 3: Ingredients)
 Trade Name/Synonym : **Dyna-Gro Liquid Nutrients, Grow, Bloom, Pro-Series**
 CAS Number (s) : Mixture (see Section 3: Ingredients)

Section 1: Manufacturer or Supplier

Dyna-Gro Nutrition Solutions™ 1065 Broadway, San Pablo, CA 94806, (800) 396-2476 or (510) 233-0254

Section 2: Hazardous Ingredients

Contains no hazardous mixtures

Section 3: Physical Data & Ingredients

Physical State at STP : Liquid	Percent Volatile : N/A
Boiling Point : 312° F	Vapor Pressure : 0.22 mm/Hg
Specific Gravity : 1.43	Solubility in Water ... : Miscible
Vapor Density : 13.3	Melting Point : 26.4° F
Evaporation Rate : N/A	Appearance & Odor ... : Light yellow to dark green odorless

liquid

Ingredient	Formula	—%—	CAS#	Exposure limits in air: ACGIH TLV: OSHA PEL
Mono-Ammonium Phosphate	NH ₄ H ₂ PO ₄	<10%	7722-76-1	Not Established
Mono-Potassium Phosphate	KH ₂ PO ₄	<6%	7778-77-0	Not Established
Magnesium Sulfate	MgSO ₄	<1%	10034-99-8	Not Established
Ammonium Nitrate	NH ₄ NO ₃	<10%	6484-52-2	Not Established
Calcium Nitrate	Ca(NO ₃) ₂	<6%	13477-34-4	Not Established
Potassium Nitrate	KNO ₃	<10%	7757-79-1	Not Established
Phosphoric Acid	H ₃ PO ₄	<6%	007-664-382	3 mg/m ³
Cobaltous Sulfate	CoSO ₄	<0.01%	10026-24-1	0.1 mg (CO)/m ³
Manganese EDTA	Mn EDTA	<0.1%	15708-48-2	5.0 mg/m ³
Iron EDTA	Fe EDTA	<0.1%	15708-41-5	Not Established
Copper EDTA	Cu EDTA	<0.01%	67989-88-2	1.0 mg/m ³
Zinc EDTA	Zn EDTA	<0.01%	14025-48-2	10 mg/m ³
Boric Acid	H ₃ BO ₃	<0.01	10043-35-3	Not Established
Molybdic Acid	H ₂ Mo ₃	<0.01%	7782-91-4	5.0 mg (Mo)/m ³ (TWA)
Potassium Chloride	KCl	<0.1%	7747-40-7	Not Established

Section 4: Fire & Explosion Hazard Data

Flash Point : Non Flammable
 Auto-Ignition Temp. (Lower) : N/A
 Auto-Ignition Temp. (Upper) : N/A
 Flammable Limits in Air : N/A
 Extinguishing Media to Use : Dry Chemicals, CO₂, Water or Water Base Foam
 Special Fire Fighting Equipment : Wear protective clothing & breathing unit
 Unusual Fire & Explosion Risk : Corrosive—Avoid contact with skin or eyes. Do not breathe.

Section 5: Health Hazard Data

Effects of Over-Exposure:

Prolonged contact with skin may cause irritation. Contact with eyes and respiratory tract may cause irritation. If swallowed, may cause distress, cramping, vomiting and hypertension.

Section 5: Health Hazard Data—continued

Health Effects or Risks from Exposure:

Acute: Burns to skin, eyes and nasal passages, cramps and vomiting if swallowed.
Chronic: Irritation to skin and mucus membranes.

Emergency First Aid:

If Swallowed: Induce vomiting immediately giving two glasses of water, milk or milk of magnesia.
Never give anything by mouth to an unconscious person. Call a physician.

Skin Exposure: Wash skin with soap and water for 15 minutes. Flush area with mild sodium bicarbonate solution. Get medical attention if irritation develops or persists.

Eye Exposure: Immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

If Inhaled: Remove to fresh air. Call a physician.

Section 6: Reactivity Hazard Data

Suspected Cancer Agent : Not a carcinogen.

Conditions to Avoid : Skin & eye contact, do not breathe, do not drink.

Stability : Stable

Hazardous Polymerization : Polymerization will not occur.

Hazardous Decomposition : Contact with some metals may produce hydrogen, which can form flammable mixtures in air.

Incompatibility—Materials to Avoid . . . : Can react with metals to liberate hydrogen, a flammable gas.
Corrosive to many metals such as iron, copper, brass or bronze.

Section 7: Spill or Leak Procedures

Steps to take if Spill Occurs : Cover the contaminated surface with sodium bicarbonate or a soda ash-slaked lime; mix and add water if necessary to form a slurry. Scoop up slurry, store in overpac drums.

Waste Disposal Method : Dispose of all waste according to local, state and federal regulations. Mix with water and dispose of in approved landfill.

Section 8: Special Protection Information

Respiratory Protection : Self-contained breathing apparatus

Ventilation : Local and mechanical

Eye Protection : Safety goggles

Protective Gloves : Rubber

Other Protective Equipment : Non-absorbent clothing and rubber boots.

Section 9: Special Precautions

Precautionary Labeling : Corrosive

Other Handling & Storage Conditions: Do Not drink, get in eyes, on skin or on clothing. Avoid breathing vapor. Keep in tightly closed container. Loosen container cautiously. Wash thoroughly with soap and water after handling. Store in a well ventilated area, away from organic chemicals, strong bases, metal powders, carbides, sulfides and other readily oxidizable materials.

Material Safety Data Sheet
March 1, 2002

Chemical Name: Pure Neem Oil
Formula: Pure Neem Oil
CAS Number (s): 8002-65-1

Section 1: Manufacturer or Supplier

Dyna-Gro Nutrition Solutions, 1065 Broadway, San Pablo, CA 94806, Emergency Phone (510) 233-0254

Section 2: Hazardous Ingredients

Contains no hazardous mixtures

Section 3: Physical Data & Ingredients

Physical State at STP: Liquid	pH: 6.5 - 7.5
Appearance: Brown	Specific Gravity: 0.9137
Odor: Garlic	Solubility in Water: Slightly Soluble
Boiling Point: > 392° F	Vapor Pressure at 20° C: < 1.33 EE-5 Pa
Melt/Freeze Point: 55° F	Vapor Density: Greater than air

Section 4: Fire, Explosion & Reactivity Hazard Data

Flash Point: >239° F
Extinguishing Media to Use: Dry Chemicals, CO₂, Water or Foam
Special Fire Fighting Procedures: None
Unusual Fire & Explosion Risk: None
Incompatibility: None Noted
Hazardous Decomposition Products ...: N/A
Conditions to Avoid: None

Section 5: Health Hazard Data

Effects of Over-Exposure: None Noted.

Health Effects or Risks from Exposure:

Acute Eye Contact: May cause mild, reversible eye irritation.
Chronic Eye Contact: Chronic exposure not likely from normal use.
Acute Skin Contact: May cause mild, reversible skin irritation. LD50 >2g/kg
Chronic Skin Contact: Repeated exposure may cause mild sensitization.
Acute Ingestion: LD50 >5g/kg
Chronic Ingestion: Chronic exposure not likely from normal use.
Carcinogenicity: NTP: N/A IARC: N/A OSHA: N/A

Medical Conditions Aggravated by Exposure: None Noted.

Section 5: Health Hazard Data---continued

Emergency First Aid:

- If Swallowed: Less than an ounce will not cause significant harm. For larger amounts, do not induce vomiting, drink one or two glasses of water and get medical attention.
- Skin Exposure: Wash with soap and water. Get medical attention if irritation develops or persists.
- Eye Exposure: Flush eyes with plenty of water. Get medical attention if irritation persists.
- If Inhaled: Remove to fresh air. Get medical attention if irritation persists.

Section 6: Spill or Leak Procedures

- Environmental Hazard: Do not apply directly to water, or to areas where surface water is present. This product is toxic to bees exposed to direct treatment.
- Spillage: Absorb the liquid and scrub the area with detergent and water. Avoid runoff into storm sewers and ditches that lead to waterways.
- Waste Disposal Method: Wastes resulting from the use of this product may be disposed of onsite or at an approved waste disposal facility.

Section 7: Special Protection Information

- Respiratory Protection : No special requirements.
- Ventilation : No special ventilation requirements.
- Eye Protection : Use of safety goggles is recommended.
- Skin Protection : Use of rubber gloves is recommended.

Section 8: Handling & Storage Conditions

- Storage Temperature (Min./Max.): 55° F / 95° F
- Shelf Life : Stable under normal storage conditions for upwards of two years.
- Special Sensitivity : Keep from freezing.
- Handling & Storage Precautions . . : None.

Section 9: Transportation Information

- D.O.T. Proper Shipping Name . . . : N/A
- Technical Shipping Name : Pure Neem Oil
- D.O.T. Hazard Class : N/A

All information appearing herein is based upon data obtained from the manufacturer and/or recognized technical sources. While the information is believed to be accurate as of the effective date given above, Dyna-Gro makes no representations as to its accuracy or sufficiency. Conditions of use are beyond Dyna-Gro's control. Therefore, users are responsible for determining whether under their own operating conditions the product is suitable for their particular use. Users assume all risks of use, handling, and disposal of the product. The publication or use of, or reliance upon, information contained herein does not relate to the use of this product in combination with any other material or in any other process.

