



SAFETY DATA SHEET

I. IDENTIFICATION

Product Identifier(s): 1,4SEED™

Other Means of Identification: Registration No. 29838 Pest Control Products Act
US EPA Registration No. 67727-3

Substance: 1,4-Dimethylnaphthalene
CAS No.: 571-58-4
EC No.: 209-335-9

Recommended Use: Liquid Aerosol Grade - Seed Potato Dormancy Enhancer.
Restrictions on Use: COMMERCIAL.

Manufacturer/Supplier: 1,4GROUP, Inc.
2307 East Commercial St.
Meridian, ID 83642

Telephone Number: 1-208-887-9766

Emergency Telephone Number: 1-208-887-9766 (1,4GROUP, Inc.)
Transportation Emergency: 1-800-633-8253 (PERS)

2. HAZARD(S) IDENTIFICATION

GHS Classification: (US & CANADA) **NOT APPLICABLE. REGISTERED PESTICIDE.** See Sections 15 and 16.

Label Elements: **READ THE LABEL BEFORE USING. KEEP OUT OF REACH OF CHILDREN.**

Hazards: **HAZARDS TO HUMANS AND DOMESTIC ANIMALS.**
Harmful if absorbed through skin, inhaled or swallowed. Avoid contact with eyes, skin and clothing. Avoid breathing vapours or fog.

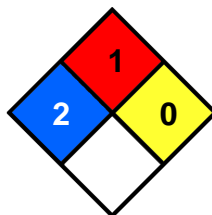
Precautions: **NOTICE TO USER:** This product is to be used only in accordance with the directions on the label. It is an offence to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

GHS Hazards: (US & Canada) May be fatal if swallowed and enters airways. Harmful if inhaled. Causes eye and skin irritation. May cause respiratory irritation. May cause drowsiness or dizziness. See Section 16.

Ingredients with unknown toxicity: Not applicable.

HMIS & NFPA:

HEALTH	* 2
FLAMMABILITY	1
PHYSICAL HAZARD	0
PPE	X



Legend	
Extreme Danger	4
Serious	3
Moderate	2
Slight	1
Minimal	0
Chronic	*

3. COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS number	EC number	Weight %
1,4-Dimethylnaphthalene	571-58-4	209-335-9	98.4%



4. FIRST-AID MEASURES

- IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration. Call a poison control center or doctor for treatment advice. Take container, label or product name and Registration Number with you when seeking medical attention.
- IF ON SKIN OR CLOTHING:** Remove contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
- IF IN EYES:** Hold eye open and rinse slowly and gently with water for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
- IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

MOST IMPORTANT SYMPTOMS & EFFECTS (ACUTE OR DELAYED): Causes substantial but temporary eye injury. May be fatal if swallowed and enters airways. Overexposure may cause kidney damage including chronic progressive nephropathy

Immediate medical attention and special treatment: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Dry chemical, carbon dioxide.

Unsuitable Extinguishing Media: None known.

Specific Fire and Explosion Hazards: Not flammable by WHMIS/OSHA criteria. Keep away from heat, flames, and sparks.

Flash Point (PMCC): 122°C (252°F) **LEL:** Not available. **UEL:** Not available.

Hazardous Combustion Products: Oxides of carbon.

Special protective equipment and precautions for fire-fighters: Prevent human exposure to smoke, vapours and products of combustion. Fire-fighters should wear full protective gear with self-contained breathing apparatus (SCBA). Move containers from fire area if you can do it without risk. Keep containers cool with water fog or spray to prevent rupture from excessive heat. Dike fire-control water for later disposal; do not scatter the material. Prevent entry into waterways or sewers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: See product label. Before attempting clean-up, refer to Section 8 personal protection. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for cleanup of spills.

Methods for clean up: See product label. Evacuate unprotected and untrained personnel from the area. The spill should be handled by qualified personnel only. Remove all sources of ignition. Ventilate the area. Contain spill. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Cover spill with a non-combustible material such as vermiculite or other commercially available inorganic absorbent. Cover spill with absorbent until it appears dry. Collect the spilled material using spark proof tools and clean up the area. Place waste materials in a closed container suitable for disposal. Dike wash water for proper disposal. Observe all local, state and federal laws and regulations regarding disposal, spill, cleanup, removal and discharge.



- Waste Disposal:** See product label. Do not allow waste to enter sewers or surface waters. Refer to Section 13 for disposal considerations.
- Container Disposal:** See product label. Make the empty container unsuitable for further use. Dispose of the container in accordance with the provincial requirements. For information on disposal of unused or unwanted product, contact the manufacturer or the provincial regulatory agency.

7. HANDLING AND STORAGE

- Precautions for safe handling:** KEEP OUT OF REACH OF CHILDREN. Follow all instructions on the label. Wear appropriate protective equipment (see Section 8). Avoid contact with eyes, skin, and clothing. Avoid inhalation of vapours or fog. Do not eat, drink, or smoke in work areas. Remove contaminated clothing and discard or wash before reuse.
- Conditions for safe storage:** KEEP OUT OF REACH OF CHILDREN. Follow all instructions on the label. Store away from food and animal feed. Keep container tightly closed when not in use. Store in a cool, dry, well-ventilated area away from heat, flames, combustible and incompatible materials. Post warnings and restrict access to storage area to authorized personnel. Comply with all applicable regulations.
- Incompatible materials:** Strong oxidizers, acids, and bases.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Occupational Exposure Limits:** Occupational exposure limits have not been established. ACGIH TLV & OSHA PEL – 8 hr TWA for petroleum distillates: 525 mg/m³.
- Engineering Controls:** This material when aerosolized is required to be handled under specific process conditions according to the product label instructions.
- Individual protection measures:** Follow all instructions on the label.
- Respiratory Protection:** Use a NIOSH-approved organic vapour-removing cartridge with a pre-filter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C) or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G) or a NIOSH approved respirator with an organic vapour (OV) cartridge or canister with any R, P or HE pre-filter to reduce potential for inhalation exposure when use conditions generate vapour, mist or aerosol. When exposure potential requires a higher level of protection, for example, when workers enter storage or treatment areas during or following application, that is, before the aerosol fog has settled or in emergency conditions, use a NIOSH-approved positive-pressure respirator and wear appropriate protective clothing. Respirator cartridges or canisters must be changed frequently to assure that breakthrough exposure does not occur. Observe OSHA regulations for respirator use (29 CFR 1910.134).
- Skin Protection:** Skin contact with liquid or aerosol spray must be prevented by the use of impervious clothing, chemical resistant gloves and footwear, each selected with regard to use conditions and exposure potential. For entry and re-entry into treated areas during application and prior to ventilation or settling of aerosol fog or within 30 minutes post-application for emergencies only, workers must wear: coveralls over long-sleeved shirt, long pants, shoes plus socks, and chemical resistant (such as nitrile or butyl) gloves;
- Eye/Face Protection:** Wear splash goggles or face shield. Contact lenses should not be worn.



9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

pH @ 20°C: 5.9

Vapour Density (Air = 1): Not available

Decomposition Temperature: Not available

Viscosity @ 25°C (77°F): 6 cPs

Solubility in Water @ 25°C (77°F): 5.1 ppm

Vapour Pressure @ 25°C: 2.5 Pa

Boiling Point: 264°C (507°F)

Odour Threshold (ppm): Not available

Colour; Odour: Clear yellow; petroleum distillate

Flash Point (PMCC): 122°C (252°F)

Autoignition Temperature (°C/°F): Not available

Evaporation Rate (Ether =1): Not available

Upper & Lower Explosive Limits: Not available

Flammability (solid; gas): Not applicable

Melting Point/Freezing Point: 5°C (41°F)

Relative Density @ 25°C (water =1): 1.014 g/mL

Partition Coefficient n-octanol/water: Log P= 4.37

10. STABILITY AND REACTIVITY

Chemical Stability: Stable.

Reactivity: Not oxidizing or explosive.

Possibility of hazardous reactions: Hazardous polymerization is not expected to occur.

Incompatible materials: Acids, bases and strong oxidizers.

Hazardous decomposition products: Oxides of carbon.

Conditions to avoid: Avoid heat, flames, sparks, and all other sources of ignition.

11. TOXICOLOGICAL INFORMATION

Information on the likely routes of exposure.

HEALTH EFFECTS:

Eyes: Causes substantial but temporary eye injury. Symptoms include pain, tearing, redness, or swelling.

Skin: Causes irritation. Can be absorbed through the skin with symptoms similar to inhalation.

Inhalation: Harmful if inhaled. Can cause respiratory tract irritation and central nervous system effects (headache, dizziness, nausea, fatigue, unconsciousness).

Ingestion: May be fatal if swallowed and enters airways. May cause central nervous system effects (headache, dizziness, fatigue, vomiting, unconsciousness). Aspiration in the lungs can cause chemical pneumonitis.

Target Organ Toxicity: Overexposure may cause kidney damage including chronic progressive nephropathy.

TOXICITY DATA:

Oral LD₅₀, rat: 2730 mg/kg

Dermal LD₅₀, rabbit: >2000 mg/kg

Inhalation LC₅₀, rat: >4.16 mg/L

Eye Irritation: Mild Irritant

Skin Irritation: Mild Irritant

Skin Sensitization: Negative (guinea pig - Buehler method)

Respiratory Sensitization: No data available

Germ Cell Mutagenicity: Insufficient data available.

Teratogenicity: Insufficient data available.

Reproductive Effects: Insufficient data available.

Carcinogenicity: Insufficient data available. Not listed by IARC, OSHA, or ACGIH.



12. ECOLOGICAL INFORMATION

Ecological Toxicity: Toxic to aquatic organisms. Do not contaminate bodies of water.

LC₅₀ 96 hr (Rainbow Trout): 0.67 mg/L

EC₅₀ 48 hr (Daphnia magna): 0.54 mg/L

LC₅₀ 96 hr (Fathead minnow): 1.4 mg/L

Persistence and degradability: Not determined. Not expected to persist or bioaccumulate in the environment.

Other adverse effects: None known.

13. DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose of residual product and empty container in accordance with label instructions. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal and State Law. If wastes cannot be disposed of by application according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste section of the nearest EPA Regional Office for guidance. Do not allow waste to enter sewers or surface waters. Pesticide wastes are considered toxic.

14. TRANSPORT INFORMATION

UN proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1,4-dimethylnaphthalene)

UN No: 3082

Class: 9

Packing group: III

Marine pollutant: Yes (Applicable to containers >5 L)

15. REGULATORY INFORMATION

US Federal Regulations:

FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT: US EPA Reg No. 67727-3.

This chemical is a pesticide product registered by the United States Environmental Protection Agency (EPA) and is subject to certain labelling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels.

OSHA: Exempt. This SDS has been prepared in accordance with the OSHA Hazard Communication Standard 29 CFR 1910.1200 (HCS 2012) and contains all of the information required. This product is considered hazardous under the criteria of the HCS 2012. Section 1910.1200(b)(5) does not require labelling of any pesticide as defined in the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), when subject to the labelling requirements of that Act and labelling regulations issued under that Act by the US EPA. See Section 16.

TSCA Status: Not on TSCA Inventory; it is sold as an EPA-registered pesticide.

CERCLA -Hazardous Substances – Reportable Quantities: Not listed.

SARA Title III, Sections 311/312 - Hazard Categories: Fire; Immediate Health; delayed health

SARA TITLE III, Section 313: Not reportable

California Proposition 65: Not listed



Canada Federal Regulations:

PEST CONTROL PRODUCTS ACT: REGISTRATION NO. 29838. Registered pest control products are exempt from the Hazardous Products Act (HPA) Part II – Hazard classification and supplier SDS and labelling requirements. Part II does not apply in respect of the sale or importation of anything listed in Schedule 1 including any pest control product as defined in subsection 2(1) of the Pest Control Products Act (PCPA), when subject to the labelling requirements of that Act and labelling regulations issued under the Act by the Pest Management Regulatory Agency (PMRA).

WHMIS: Exempt. This SDS has been prepared in accordance with the Hazardous Products Regulations (HPR) and contains all of the information required. This product is considered hazardous under the criteria of the HPR. See Section 16.

16. OTHER INFORMATION

GHS Classification (US & CANADA):

Aspiration Hazard Category 1; Acute Inhalation Toxicity Category 4; Skin Irritation Category 2; Eye Irritation Category 2B; Specific Target Organ Toxicity (Single Exposure) Category 3



Signal word:

DANGER

Hazard statements:

MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS.
HARMFUL IF INHALED. CAUSES EYE AND SKIN IRRITATION.
MAY CAUSE RESPIRATORY IRRITATION. MAY CAUSE DROWSINESS OR DIZZINESS.

Precautionary statements:

Do not breathe fumes, gas, mist, vapours or spray. Use only in a well-ventilated area. Wear protective gloves. Wash exposed areas thoroughly after handling.

IF SWALLOWED: Immediately obtain medical attention. Do NOT induce vomiting.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Obtain medical attention.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists obtain medical attention. Dispose of contents in accordance with applicable regulations.

IF ON SKIN: Wash with plenty of water. If skin irritation occurs obtain medical attention. Take off contaminated clothing and wash it before reuse.

Store locked up. Store in a well-ventilated place. Keep container tightly closed. Dispose of contents in accordance with applicable regulations.

Date of Preparation:

15 Sep 2016

Disclaimer:

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