

## MATERIAL SAFETY DATA SHEET

### SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

**Product identifier:** SLAM'R HERBICIDE

**Product use:** Herbicide.

**PCP Reg. No.:** 31053

**Supplier's name and address:**

**Agri Star**  
#210, 276 Midpark Way SE  
Calgary, AB T2X 1J6  
Canada

**Emergency Telephone #:** 1-(613) 996-6666 (CANUTEC)

### SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS No.	Percentages (%)	ACGIH TLV (mg/m <sup>3</sup> )	OSHA PEL (mg/m <sup>3</sup> )
Clodinafop-propargyl	105512-06-9	22.3%	N.D.	N.D.
Napthalene	91-20-3	< 10%	10 ppm TWA	10 ppm TWA
n-Methylpyrrolidone	872-50-4	< 10%	N.D.	N.D.
Petroleum solvent	Proprietary	< 60%	N.D.	N.D.
Cloquintocet-mexyl	658-88-1	< 10%	N.D.	N.D.

### SECTION 3 — HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

Light to dark brown liquid, with slight aromatic like odor.

Irritating to eyes, skin and respiratory system.

Combustible liquid, product can decompose at high temperatures forming toxic gasses.

#### \*\*\*POTENTIAL HEALTH EFFECTS\*\*\*

**Target organs:** Eyes, skin, respiratory system, digestive system. Signs and symptoms of short-term (acute) exposure:

**Inhalation:** Inhalation may cause irritation to the nose, throat and upper respiratory tract. Symptoms may include coughing and sneezing

**Skin contact:** Direct skin contact may cause slight irritation. Skin allergies possible.

**Eye contact:** Direct eye contact may cause moderate irritation and reversible eye injury. Symptoms may include pain, redness and tearing.

**Ingestion:** Harmful if swallowed.

**Carcinogenicity:** See TOXICOLOGICAL INFORMATION (Section 11).

**Other important hazards:** See TOXICOLOGICAL INFORMATION (Section 11).

**Potential environmental effects:** This product is a herbicide and therefore toxic to some plants. See ECOLOGICAL INFORMATION (Section 12).

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## SECTION 4 — FIRST AID MEASURES

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**Eyes:** Immediately flush eyes with running water for at least 15 minutes. Get medical attention.

**Skin:** Wash skin with soap and running water, while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists. Thoroughly clean contaminated clothing before re-use.

**Inhalation:** Immediately remove victim to fresh air. Obtain medical attention if irritation develops or persists.

**Ingestion:** If ingested, do not induce vomiting. Have victim drink 6 to 8 ounces of water. Never give anything by mouth if victim is unconscious or convulsing. Obtain medical attention.

Contains petroleum distillate – vomiting may cause aspiration pneumonia.

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## SECTION 5 — FIRE FIGHTING MEASURES

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**Flash point (Method):** 145° F / 62° C

**Auto-ignition temperature:** > 500 C

**Lower flammable limit** (% by volume): 1.0% **Upper flammable limit** (% by volume): 7.0%

**Fire hazards/conditions of flammability:** Combustible liquid. This material contains petroleum distillates and may ignite or burn when exposed to extreme heat, flame and other ignition sources.

**Sensitivity to mechanical impact:** Not sensitive.

**Sensitivity to static discharge:** Low.

**Suitable extinguishing media:** For small fires, use dry chemical or carbon dioxide. For large fires, use water spray or foam.

**Special fire-fighting procedures/equipment:** Firefighters should wear proper chemically protective equipment and self-contained breathing apparatus operated in positive pressure mode. Move containers from fire area if it can be done without risk. Dike area to prevent water run-off. Water spray may be useful in cooling equipment and containers. Avoid spreading burning material with water jet.

**Hazardous combustion products:** Carbon oxides and nitrogen oxides. Toxic fumes of Cl- and NOx from active ingredient may also develop.

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## SECTION 6 — ACCIDENTAL RELEASE MEASURES

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**Personal precautions:** Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate chemically protective equipment. Refer to Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.

**Environmental precautions:** Ensure spilled product does not enter drains, sewers, waterways, or confined spaces.

**Spill response/Cleanup:** Eliminate all sources of heat, sparks and flame. Ventilate area of release. Stop leak if you can do so without risk. For spills on the floor or other impervious surfaces, absorb spill with inert, non-combustible absorbent material, such as hydrated lime, Fuller's earth or other absorbent clays. Scoop up and place contaminated absorbent material into suitable containers for later disposal (see Section 13). Clean the spill area with soap and water, then rinse thoroughly. Do not flush to sewer or allow to enter confined spaces. Large spills that soak into the ground should be dug up, placed in suitable containers and disposed of appropriately (see Section 13). Notify the appropriate authorities.

**Special spill response procedures:** A spill/release into watercourses must be notified to the appropriate provincial or federal (DFO) regulatory body.

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## SECTION 7 — HANDLING AND STORAGE

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KEEP OUT OF REACH OF CHILDREN AND ANIMALS

**Safe handling procedures:** This material is a harmful liquid. Wear appropriate protective equipment during handling. Use only in well ventilated area. Avoid contact with eyes, skin and clothing. Do not inhale vapors or mists. Keep away from all unprotected persons and children. Do not use near sources of heat, flame or ignition sources. Keep away from bases and incompatibles. Use caution when opening containers. Keep container tightly closed when not in use. Wash thoroughly after handling.

**Storage recommendations:** Store below 40 C. Store in original container in a cool, dry, well ventilated area away from incompatibles. Protect container from physical damage. No eating, drinking or smoking in the area. Inspect containers periodically for damage or leaks.

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## SECTION 8 — EXPOSURE CONTROLS AND PERSONAL PROTECTION

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**Ventilation and engineering controls:** If handled indoors, general room ventilation may not be sufficient. Provide mechanical exhaust ventilation to keep concentrations below specified TLV's and PEL's.

**Respiratory protection:** This product is not likely to present an airborne exposure concern during normal handling. In the event of an accidental discharge of the material during manufacturing or handling, which produces a heavy vapor or mist, workers should put on respiratory protection. Wear respirators approved organic vapors.

**Protective gloves:** Wear impervious chemical gloves, such as barrier laminate, butyl rubber, nitrile rubber or viton.

**Eye protection:** Wear safety glasses with side shields or chemical splash goggles to prevent vapors or mists from entering the eyes. If using a full face shield, always use safety glasses or goggles along with the face shield to ensure adequate protection of the eyes.

**Other protective equipment:** Wear appropriate protective clothing such as coveralls, socks and shoes to prevent skin contact. Other protective equipment, such as an eyewash station and safety shower, may be required depending on exposure and on workplace standards.

**Permissible exposure levels:** See Section 2.

**General hygiene considerations:** Avoid breathing vapors or mists. Avoid contact with eyes, skin and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash before re-use.

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## SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

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**Physical state and appearance:** Light to dark brown liquid.

**Odor:** Aromatic like.

**Specific gravity** (water = 1): 1.06 – 1.10 g/cm<sup>3</sup>

**Solubility in water:** The product emulsifies in water.

**pH:** 5 - 8 (1% aqueous solution).

**Boiling point:** 175 – 210 °C

**Freezing point:** -30 °C.

**Vapour density** (Air=1.0): Unknown

**Percent Volatile by Weight:** < 70%

**Evaporation rate** (n-BuAc=1.0): 0.03 (aromatic hydrocarbon)

**Vapour pressure:** 4.0 x 10<sup>-8</sup> mmHg (clodinafop technical)

**Coefficient of n-Octanol/water distribution:** Unknown

**Viscosity:** 26 centistokes @ 68°F / 20°C;

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## SECTION 10 — REACTIVITY AND STABILITY DATA

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**Stability and reactivity:** This product is stable at ambient temperatures

**Hazardous polymerization:** Hazardous polymerisation does not occur.

**Conditions to avoid:** Avoid heat, flame and direct sunlight.

**Materials to avoid (incompatibles):** Strong oxidizers, strong acids and alkalies.

**Hazardous decomposition products:** Refer to 'Hazardous combustion products' Section.

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## SECTION 11 — TOXICOLOGICAL INFORMATION

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**Routes of exposure:** Skin contact, eye contact, inhalation, and ingestion.

**Toxicological data:**

Acue Oral: > 2,200 mg/Kg

Acute Dermal: > 4,000 mg/Kg

Acute Inhalation: > 3.5 mg/L (4 hours)

Eye Irritation: Moderately irritating

Skin Irritation: Moderately irritating

Skin Sensitization: Potential sensitizer

**Carcinogenicity:** Increased incidences of benign tumors in mice.

**Teratogenicity, mutagenicity, other reproductive effects:** None known.

**Synergistic materials:** Unknown.

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## SECTION 12 — ECOLOGICAL INFORMATION

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**Chemical fate information:** The product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface waters. Do not discharge product unmonitored into the environment. Clodinafop is sensitive to soil and water microbial degradation in addition to soil hydrolysis and photolysis. Mobility in soil is low to moderate.

**Ecotoxicological information:** The product is highly toxic to fish and aquatic invertebrates. This product is a herbicide and therefore toxic to some grass species plants. It is considered to be less harmful to birds, mammals and bees.

The acute toxicity of the product is measured to be:

**Fish -**

96-Hr LC<sub>50</sub>, Rainbow trout: 0.39 ppm

96-Hr LC<sub>50</sub>, Bluegill sunfish: 0.21 ppm

**Invertebrates -**

48-Hr EC<sub>50</sub>, Daphnids: 2.0 ppm

21-day NOEC, Daphnids: 0.14 mg/L

**Birds -**

LC<sub>50</sub>, Bobwhite quail: > 5,200 ppm

LC<sub>50</sub>, Mallard Duck: > 5,200 ppm

**Bees -**

LC<sub>50</sub> Honey bees: > 100 ug/bee

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## SECTION 13 — DISPOSAL CONSIDERATIONS

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**Handling for disposal:** Handle waste according to recommendations in Section 7.

**Methods of disposal:** Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Triple rinse (or equivalent) containers, then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill. Disposal must be in compliance with all Federal, Provincial and local regulations. Contact your local, provincial or federal environmental agency for specific rules.

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## SECTION 14 — TRANSPORTATION INFORMATION

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**US 49 CFR information:** Not regulated for transport.

**Canadian Transportation of Dangerous Goods Clear Language (CLR) information:** Not regulated for transport.

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## SECTION 15 — REGULATORY INFORMATION

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**Canada:**

**WHMIS information:** This product is a Pest Control Product and is not regulated as a Controlled Product under the Hazardous Products Act (HPA). However, for reference purposes only, this product would have the following WHMIS Classification if it were regulated as a Controlled Product under the HPA: Class D2B (Materials causing other toxic effects, Toxic Material).

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and this MSDS contains all the information required by the CPR.

**United States:**

**California Proposition 65 information:** This product does not contain any chemicals known to the state of California to cause cancer or reproductive harm.

**EPA/CERCLA Reportable Quantity (RQ):** None known.

**SARA TITLE III:** Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This material is not known to contain any Toxic Chemical constituents.

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## SECTION 16 — OTHER INFORMATION

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**Legend:**

ACGIH - American Conference of  
Governmental Industrial Hygienists CAS - Chemical Abstract Service  
CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act of 1980  
CFR - Code of Federal Regulations  
EPA - Environmental Protection Agency  
HMIS - Hazardous Materials Identification System  
IARC - International Agency for Research on Cancer  
Inh - Inhalation  
MSHA - Mine Safety and Health Administration N/Av - Not Applicable N/Av - Not Available  
NIOSH - National Institute for Occupational Safety and Health NTP - National Toxicology Program  
OEHHA - Office of Environmental Health Hazard Assessment  
OSHA - Occupational Safety and Health Act  
PEL - Permissible Exposure Limit  
PMCC - Pensky Martins Closed Cup  
RCRA - Resource Conservation and Recovery Act  
SARA - Superfund Amendments & Reauthorization Act  
TLV - Threshold Limit Value  
TSCA - Toxic Substances Control Act  
TWA - Time Weighted Average  
WHMIS - Workplace Hazardous Materials Information System

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**Revised for:** Update company name and product registration number in Section 1