SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name: SLAM'R Herbicide

PCP Reg. No.: 31053

Product use: Herbicide

Supplier's name and address:

Agri Star Canada ULC 210, 276 Midpark Way SE Calgary, Alberta Canada T2X 1J6 (403) 873-5177

Emergency Telephone #:

1-800-424-9300 (CHEMTREC)

SECTION 2 — HAZARDS IDENTIFICATION

Physical Hazards: Flammable Liquid - Category 4

Health Hazards:	Eye Irritation –	Category 2B
	Skin Irritation –	Category 2
	Skin Sensitizer –	Category 1B
	Acute Toxicity (Oral) –	Category 5
	Acute Toxicity (Dermal) –	Category 5
	Acute Toxicity (Inhalation) –	Category 4

Environmental Hazards: Hazardous to aquatic environment, acute - Category 1

Signal Word: WARNING

Hazard Statements: Combustible liquid. Causes eye irritation. Causes skin irritation. May cause an allergic skin reaction. May be harmful if swallowed. May be harmful in contact with skin. Harmful if inhaled. Very toxic to aquatic life.



Precautionary Statements: Keep away from flames and hot surfaces. Causes skin and eye irritation. Avoid contact with skin, eyes and clothing. Wear goggles or face shield during mixing/loading. Wear coveralls or long-sleeved shirt and long pants, socks, shoes and chemical-resistant gloves. Rinse gloves before removal. After use, wash hands and other exposed skin. Remove and wash contaminated clothing before reuse. Avoid

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breathing spray mist. Use only outdoors or in a well-ventilated area. May be harmful if swallowed. Do not eat, drink or smoke when using this product. Harmful if swallowed. This product contains an active ingredient and petroleum distillates which are toxic to aquatic organisms.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component	CAS No.	Percentage (%)
Clodinafop-propargyl	105512-06-9	20-25%
Petroleum solvent*	64742-94-5	<60%
*Napthalene	91-20-3	<10%

SECTION 4 — FIRST AID MEASURES

If Swallowed: Call a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. 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.

If on Skin or Clothing: Take off 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 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

Take the container, label or product name and Pest Control Product Registration Number with you when calling a poison control center or doctor or going for treatment.

Do not induce vomiting. This product contains petroleum distillates. Vomiting may cause aspiration pneumonia. Treat symptomatically.

SECTION 5 — FIRE FIGHTING MEASURES

Extinguishing Media: Water fog, alcohol foam, carbon dioxide, dry chemical.

Special Firefighting Procedures: Firefighters should wear self-contained breathing apparatus and full protective clothing when fighting chemical fires. Minimize and contain water runoff.

National Fire Protection Association (NFPA) Hazard Rating:Rating for this product:Health: 1Flammability: 2Reactivity: 0Hazards Scale:0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Use safety equipment and procedures appropriate to the size of the spill. Keep unnecessary people away. Avoid runoff to natural waters and sewers. Surround and absorb spills with inert material such as perlite, sawdust, clay granules, vermiculite, sand or dirt. Contain all affected material in a closed, labeled container for proper disposal. Isolate from other waste materials. Clean contaminated area such as hard surfaces with detergent and water, collecting cleaning solution for proper disposal. Large spills to soil or similar surfaces may necessitate removal of top soil.

SECTION 7 — HANDLING AND STORAGE

Handling: Avoid contact with skin, eyes and clothing. Wear goggles or face shield during mixing/loading. Wear coveralls over a long-sleeved shirt, long pants, socks, shoes and chemical-resistant gloves. Rinse gloves before removal. After use, wash hands and other exposed skin. Remove and wash contaminated clothing before reuse. Avoid breathing spray mist. Do not eat, drink or smoke when using this product.

Storage: Store the container tightly closed away from seeds, fertilizer, plants and foodstuffs. May be stored at any temperature. Shake well before using.

SECTION 8 — EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control Parameters:

Compon	ent	TWA*	STEL*	Note	
Clodinafop-prop	argyl	1 mg/m ³	N/E	Supplier recommendation	
Petroleum (contains)*	distillates	50 mg/m³	N/E	Supplier recommendation	
*Naphthalene		-	-	-	

*Time Weighted Average, 8-hour unless otherwise noted

**Short Term Exposure Level

N/E – Not Established

Engineering Controls: Use only outdoors or in a well-ventilated area.

Personal Protective Equipment: Wear coveralls or long-sleeved shirt and long pants, chemical resistant gloves, and goggles or face shield when mixing, loading or during equipment clean up or repair.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Note: Physical data are typical values but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification. If no value is determined for the formulation, the value listed is the most relevant value of the predominate ingredients(s).

Physical state and appearance:	. Light to dark brown liquid
Odor:	. Aromatic like
Odor Threshold:	No data
рН:	. 5.0-8.0 (1% aqueous solution)
Melting Point:	. No data
Freezing Point:	30°C
Boiling Point:	175-210 °C
Flash Point:	. 145°F/62°C
Evaporation Rate:	(n-BuAc=1.0): 0.03 (aromatic hydrocarbon)

Flammability:	No data
Explosive Limits:	No data
Vapor Pressure:	4.0 x 10 ⁻⁸ mmHg (clodinafop technical)
Vapor Density:	No data
Density:	1.06-1.10 g/mL
Solubility:	
Partition Coefficient:	. Of n-Octanol/water distribution: No data
Auto Ignition Temperature:	
Decomposition Temperature:	. No data
Viscosity	. 26 cSt @ 68°F/20°C
Percent Volatile by weight:	. <70%

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: Not reactive

Chemical Stability: Stable under normal handling and storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Excessive heat. Do not store near heat or flame

Incompatible Materials: Avoid contact with strong acidic, basic or oxidizing agents.

Hazardous Decomposition Products: Under fire conditions, may produce gases such as hydrogen chloride, nitrogen oxides and carbon oxides.

SECTION 11 — TOXICOLOGICAL INFORMATION

This section is intended for use by toxicologists and other health professionals. Data obtained on similar products and on components are summarized below.

Likely Routes of Exposure: Skin contact, eye contact, inhalation, and ingestion.

Acute oral toxicity Rat, LD50:>2,200 mg/Kg

Acute dermal toxicity Rabbit, LD50: >4,000 mg/Kg

Acute inhalation toxicity Rat, LD50: >3.5 mg/L (4 hours)

Skin irritation Rabbit: Moderately irritating

Eye irritation Rabbit:Moderately irritating

Skin sensitization Guinea Pig: Potential sensitizer

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Mutagenicity: No data

Chronic effects/carcinogenicity: Increased incidences of benign tumors in mice

Toxicity to reproduction/fertility: No data

Developmental toxicity/teratogenicity: ... No data

SECTION 12 — ECOLOGICAL INFORMATION

This section is intended for use by eco-toxicologists and other environmental specialists. Data obtained on similar products and on components are summarized below.

Ecotoxicity: (Technical) Clodinafop-propargyl

Aquatic Toxicity:

Rainbow trout:		0.39
Bluegill sunfish:		0.24
Carp:		0.46
Daphnia:		>60
Algae: Selenastrum	96-120-Hour EC ₅₀ (mg/L)	>3.9
Algae: Navicula		7.39

Avian toxicity

Bobwhite quail:	8-d Dietary LD50 (mg/kg)	1455
Mallard duck:	8-d Dietary LD ₅₀ (mg/kg)	>2000

Arthropod toxicity:

Honey bee: $LD_{50} > 100 \ \mu g/bee$ (contact) $LD_{50} > 100 \ \mu g/bee$ (oral)

Ecotoxicity: (Technical) Cloquintocet-mexyl

Aquatic Toxicity:

Rainbow trout:	 >76
Bluegill sunfish:	 >38
Carp:	 >76
Daphnia:	 >100
Algae: Selenastrum	 0.63
Algae: Navicula	 1.7

Avian toxicity

Bobwhite quail:	. 8-d Dietary LD ₅₀ (mg/kg)	>2000
Mallard duck:	. 8-d Dietary LD ₅₀ (mg/kg)	>2000

Arthropod toxicity:

Honey bee:	 LD ₅₀ >	100	µg/bee (contac	ct)
	LD ₅₀ >	100	µg/bee (oral)	

Persistence and Degradability: Clodinafop-propargyl is rapidly degraded to the free acid, which is further degraded to simpler molecules which are bound to soil and mineralized, with representative half-lives for clodinafop-propargyl and acid of 2 to 20 days. Cloquintocet-mexyl is rapidly degraded to the free acid in soil; DT_{50} <3 days. Further degradation and mineralization of the acid occurs within weeks to a few months.

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Bioaccumulation Potential: Negligible.

Mobility in Soil: Clodinafop has moderate to high mobility potential, but rapidly degraded. Cloquintocet has low mobility potential.

Other Adverse Effects: No data.

SECTION 13 – DISPOSAL CONSIDERATIONS

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Disposal should be made in accordance with federal, provincial and local regulations.

Do not reuse container for any purpose. If applicable, return container in accordance with return program. If a recyclable container, dispose of at a container collection site. Contact local distributor, dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site, triple or pressure rinse the empty container adding rinsings to spray tank, and make container unsuitable for further use. If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

SECTION 14 – TRANSPORTATION INFORMATION

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

CANADA:

TDG Classification – Road/Rail:

UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (clodinafop-propargyl), Class 9, PG III

Marine Pollutant.

Section 1.45.1 of the TDG Regulations provides an exemption from documentation and safety marks only for this product and only when transported by a road or railway vehicle.

UNITED STATES:

DOT Classification:

< 119 gallons per complete package Non Regulated – See 49 CFR 173.132(b)(3) & 172.101 Appendix A

\geq 119 gallons per complete package

NA 1993, Combustible, Liquid, n.o.s., (Napthalene), 3, III, Marine Pollutant

IMDG:

UN3082, Environmentally hazardous substance, liquid, n.o.s., (clodinafop-propargyl), 9, 111, Marine Pollutant

IATA:

UN3082, Environmentally hazardous substance, liquid, n.o.s., (clodinafop-propargyl), 9, 111, Marine Pollutant

SECTION 15 — REGULATORY INFORMATION

This chemical is a pest control product registered by Health Canada Pest Management Regulatory Agency and is subject to certain labelling requirements under the Pest Control Products Act. These requirements differ from the classification criteria and hazard information required for GHS-consistent safety data sheets. Following is the hazard information required on the pest control product label:



CAUTION POISON WARNING: EYE AND SKIN IRRITANT

SECTION 16 - OTHER INFORMATION

This Safety Data Sheet (SDS) is designed to comply with the Globally Harmonized System (GHS) of chemical hazard classification. he information given here is not necessarily exhaustive but is representative of relevant, reliable data. Follow all local/regional/national/international regulations.

HMIS Rating: 1 Health; 2 Flammability; 1 Reactivity

0 = Minimal hazard, 1 = Slight hazard, 2 = Moderate hazard, 3 = Severe hazard, 4 = Extreme hazard

This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE Pest Management Regulatory (PMRA)- APPROVED PRODUCT LABELING (attached to and accompanying the product container). This MSDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products are regulated by product labeling and provincial legislation, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of federal law to use a pesticide product in any manner not prescribed on the PMRA-approved label.

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