

# Material Safety Data Sheet

Product Name: Helmquat 3SL

MSDS ID: 74530-48

## \*\*\*Section 1 - PRODUCT AND COMPANY IDENTIFICATION\*\*\*

**Product Name:** Helmquat 3SL

**EPA Registration Number:** 74530-48

### Manufacturer Information

HELM AGRO US, INC.  
8275 Tournament Drive, Ste 340  
Memphis, TN 38125  
info@helmagro.com

Phone: 901-312-1525  
Fax: 901-312-1531  
Emergency # +1-800-424-9300 ChemTrec

### Product Use

Herbicide

## \*\*\*Section 2 - HAZARDS IDENTIFICATION\*\*\*

### Overview

DANGER\_POISON

### EMERGENCY OVERVIEW

**Color:** blue to green

**Physical Form:** liquid

**Odor:** faint, characteristic odor

**Health Hazards:** May be fatal if inhaled. Harmful if swallowed. May cause skin irritation. May cause eye irritation.

**Physical Hazards:** Corrosive to metals.

### POTENTIAL HEALTH EFFECTS

#### Inhalation

**Short Term:** May be harmful or fatal if inhaled.

**Long Term:** No information on significant adverse effects.

#### Skin

**Short Term:** May cause irritation.

**Long Term:** Prolonged or repeated exposure may cause irritation.

#### Eye

**Short Term:** May cause irritation.

**Long Term:** Prolonged or repeated contact may cause irritation.

#### Ingestion

**Short Term:** Harmful if swallowed.

**Long Term:** No information on significant adverse effects.

#### Potential Environmental Effects

May be harmful to aquatic life.

#### Regulatory Status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). This product is a controlled product according to Canada's Controlled Product Regulation.

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## \*\*\*Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS\*\*\*

CAS	Component	Percent
1910-42-5	Paraquat dichloride	30-60
12125-02-9	Ammonium chloride	1-5
67-56-1	Methyl alcohol	1-5

## \*\*\*Section 4 - FIRST AID MEASURES\*\*\*

### Inhalation

If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get medical attention immediately.

### Skin

Immediately flush contaminated areas with water. Remove contaminated clothing, jewelry and shoes. Get medical attention. Wash contaminated clothing before reuse. Thoroughly clean and dry contaminated clothing and shoes before reuse.

### Eyes

Flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention, if needed.

### Ingestion

Get medical attention immediately. Contact local poison control center or physician immediately. Do not induce vomiting unless told to do so by the poison control center or doctor. Never give anything by mouth to an unconscious or convulsive person.

## \*\*\*Section 5 - FIRE FIGHTING MEASURES\*\*\*

See Section 9 for Flammability Properties

**NFPA Ratings: Health: 4 Fire: 1 Reactivity: 0**

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

### Flammable Properties

Slight fire hazard.

### Extinguishing Media

regular dry chemical, carbon dioxide, water spray, regular foam

### Unsuitable Extinguishing Media

high-pressure water streams

### Protective Equipment and Precautions for Firefighters

Wear self-contained breathing apparatus and protective clothing.

### Fire Fighting Measures

Move container from fire area if it can be done without risk. Do not scatter spilled material with high-pressure water streams. Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

### Thermal Decomposition Products

**Combustion:** oxides of carbon, oxides of chlorine, oxides of nitrogen

## \*\*\*Section 6 - ACCIDENTAL RELEASE MEASURES\*\*\*

### Personal Precautions

Wear appropriate personal protective equipment recommended in Section 8 of the MSDS.

### Methods for Containment

Prevent entry into waterways, sewers, basements, or confined areas.

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## Environmental Precautions

Keep out of water supplies and sewers.

## Methods for Cleanup

Do not touch spilled material. Collect spilled material in appropriate container for disposal. Keep unnecessary people away, isolate hazard area and deny entry.

## \* \* \*Section 7 - HANDLING AND STORAGE\* \* \*

### Handling Procedures

Do not breathe vapor or mist. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Do not eat, drink, or smoke when using this product. Wash thoroughly after handling. Keep away from metals.

### Storage Procedures

Store and handle in accordance with all current regulations and standards. Store in a tightly closed container. Store in a cool, dry place. Store in a well-ventilated area. Keep away from incompatible materials. Keep away from metals. Store in corrosive resistant container with a resistant inner liner.

## \* \* \*Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION\* \* \*

### Component Exposure Limits

#### Paraquat dichloride (1910-42-5)

- OSHA:** 0.5 mg/m<sup>3</sup> TWA (respirable dust)  
prevent or reduce skin absorption
- NIOSH:** 0.1 mg/m<sup>3</sup> TWA (respirable dust)  
Potential for dermal absorption

#### Ammonium chloride (12125-02-9)

- ACGIH:** 10 mg/m<sup>3</sup> TWA (fume)  
20 mg/m<sup>3</sup> STEL (fume)
- NIOSH:** 10 mg/m<sup>3</sup> TWA (fume)  
20 mg/m<sup>3</sup> STEL (fume)
- Mexico** 10 mg/m<sup>3</sup> TWA LMPE-PPT (fume)  
20 mg/m<sup>3</sup> STEL [LMPE-CT] (fume)

#### Methyl alcohol (67-56-1)

- ACGIH:** 200 ppm TWA  
250 ppm STEL  
Skin - potential significant contribution to overall exposure by the cutaneous route
- OSHA:** 200 ppm TWA; 260 mg/m<sup>3</sup> TWA
- NIOSH:** 200 ppm TWA; 260 mg/m<sup>3</sup> TWA  
250 ppm STEL; 325 mg/m<sup>3</sup> STEL  
Potential for dermal absorption
- Mexico** 200 ppm TWA LMPE-PPT; 260 mg/m<sup>3</sup> TWA LMPE-PPT  
250 ppm STEL [LMPE-CT]; 310 mg/m<sup>3</sup> STEL [LMPE-CT]  
Skin - potential for cutaneous absorption

### Engineering Controls

Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

### PERSONAL PROTECTIVE EQUIPMENT

#### Eyes/Face

Wear chemical safety goggles with a faceshield to protect against skin and eye contact when appropriate. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

#### Protective Clothing

Wear appropriate chemical resistant clothing.

#### Glove Recommendations

Wear appropriate chemical resistant gloves.

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## Respiratory Protection

Where vapor concentration exceeds or is likely to exceed applicable exposure limits, a NIOSH approved respirator is required.

### \*\*\*Section 9 - PHYSICAL AND CHEMICAL PROPERTIES\*\*\*

<b>Physical State:</b>	Liquid	<b>Appearance:</b>	Blue to green liquid
<b>Color:</b>	Blue to green	<b>Physical Form:</b>	Liquid
<b>Odor:</b>	faint, characteristic odor	<b>Odor Threshold:</b>	Not available
<b>pH:</b>	5.35	<b>Melting Point:</b>	Not available
<b>Boiling Point:</b>	Not available	<b>Flash Point:</b>	No data available
<b>Evaporation Rate:</b>	Not available	<b>Vapor Pressure:</b>	Not available
<b>Vapor Density (air = 1):</b>	Not available	<b>Density:</b>	1.148 g/ml
<b>Specific Gravity (water = 1):</b>	Not available	<b>Water Solubility:</b>	Not available
<b>Coeff. Water/Oil Dist:</b>	Not available	<b>Viscosity:</b>	Not available
<b>VOC:</b>	Not available	<b>Volatility:</b>	Not available

### \*\*\*Section 10 - STABILITY AND REACTIVITY\*\*\*

#### Chemical Stability

Stable at normal temperatures and pressure.

#### Conditions to Avoid

Avoid contact with combustible materials.

#### Materials to Avoid

oxidizing agents, aluminum, copper, zinc

#### Decomposition Products

**Combustion:** oxides of carbon, oxides of chlorine, oxides of nitrogen

#### Possibility of Hazardous Reactions

Will not polymerize.

### \*\*\*Section 11 - TOXICOLOGICAL INFORMATION\*\*\*

#### Acute and Chronic Toxicity

May be harmful or fatal if inhaled. May be harmful if swallowed.

Product Toxicity Data:

**Oral:** Rat LD50: 1030 mg/kg

**Dermal:** Rat LD50: >5000 mg/kg

**Inhalation:** Rat LC50: <0.052 mg/l

#### Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

##### **Paraquat dichloride (1910-42-5)**

Oral: Rat LD50: 57 mg/kg

Dermal: Rat LD50: 80 mg/kg

Dermal: Rabbit LD50: 325 mg/kg

##### **Ammonium chloride (12125-02-9)**

Oral: Rat LD50: 1410 mg/kg

##### **Methyl alcohol (67-56-1)**

Oral: Rat LD50: 5628 mg/kg

Dermal: Rabbit LD50: 15800 mg/kg

Inhalation: Rat 4-hr LC50: 83.2 mg/L

Inhalation: Rat 4-hr LC50: 64000 ppm

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## Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

## Irritation

May cause irritation of the skin and eyes.

## Respiratory Sensitizer

No information available for the product.

## Dermal Sensitizer

Not known to be a sensitizing agent.

## Carcinogenicity

No information available for the product.

## Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

## Mutagenic Data

No information available for the product.

## Reproductive Effects

No information available for the product.

## \*\*\*Section 12 - ECOLOGICAL INFORMATION\*\*\*

### Ecotoxicity

May be harmful to aquatic life.

### Component Analysis - Aquatic Toxicity

#### Paraquat dichloride (1910-42-5)

**Fish:** 96 hr LC50 Cyprinus carpio: 15 mg/l [static]  
96 hr LC50 Lepomis macrochirus: 8.5-19 mg/l [static]  
96 hr LC50 Oncorhynchus mykiss: 11.0-19.0 mg/l [static]

**Invertebrate:** 48 hr EC50 Daphnia magna: 9.1 - 12.2 mg/l [static]

#### Ammonium chloride (12125-02-9)

**Fish:** 24 hr LC50 Lepomis macrochirus: 725 mg/L  
96 hr LC50 Cyprinus carpio: 209 mg/l [static]

**Invertebrate:** 24 hr LC50 Daphnia magna: 202 mg/l

#### Methyl alcohol (67-56-1)

**Fish:** 96 hr LC50 Pimephales promelas: 28200 mg/l [flow-through]  
96 hr LC50 Pimephales promelas: >100 mg/l [static]  
96 hr LC50 Oncorhynchus mykiss: 19500 - 20700 mg/l [flow-through]  
96 hr LC50 Oncorhynchus mykiss: 18 - 20 ml/l [static]  
96 hr LC50 Lepomis macrochirus: 13500 - 17600 mg/l [flow-through]

## \*\*\*Section 13 - DISPOSAL CONSIDERATIONS\*\*\*

### Disposal Methods

Dispose in accordance with all applicable regulations. Keep out of water supplies, sewers and soil.

### Component Waste Numbers

#### Methyl alcohol (67-56-1)

RCRA: waste number U154 (Ignitable waste)

## \*\*\*Section 14 - TRANSPORT INFORMATION\*\*\*

### US DOT Information

**Shipping Name:** Corrosive liquids, toxic, n.o.s. (Contains: Paraquat dichloride)

**UN/NA #:** UN2922 **Hazard Class:** 8 **Packing Group:** III

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Required Label(s): 8, 6.1

## TDG Information

**Shipping Name:** Corrosive liquid, toxic, n.o.s. (Contains: Paraquat dichloride)

**UN #:** UN2922 **Hazard Class:** 8 **Packing Group:** III

**Required Label(s):** 8, (6.1)

## \* \* \*Section 15 - REGULATORY INFORMATION\* \* \*

### U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

#### Paraquat dichloride (1910-42-5)

**SARA 302:** 10 lb lower TPQ; 10000 lb upper TPQ  
10 lb EPCRA RQ

**SARA 304:** 10 lb EPCRA RQ

#### Ammonium chloride (12125-02-9)

**CERCLA:** 5000 lb final RQ; 2270 kg final RQ

#### Methyl alcohol (67-56-1)

**CERCLA:** 5000 lb final RQ; 2270 kg final RQ

### SARA 311/312

**Acute Health:** Yes **Chronic Health:** No **Fire:** No **Pressure:** No **Reactive:** No

### U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Paraquat dichloride	1910-42-5	Yes	Yes	Yes	Yes	Yes
Ammonium chloride	12125-02-9	Yes	Yes	Yes	Yes	Yes
Methyl alcohol	67-56-1	Yes	Yes	Yes	Yes	Yes

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

WARNING! This product contains a chemical known to the state of California to cause reproductive/developmental effects.

### Canada

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

### Canadian WHMIS Ingredient Disclosure List (IDL)

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which fall under WHMIS criteria specified in the Controlled Products Regulations and present above the threshold limits listed on the IDL.

#### Ammonium chloride (12125-02-9)

1 %

#### Methyl alcohol (67-56-1)

1 %

### WHMIS Classification

D1A, D2B.

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## Component Analysis - Inventory

Component	CAS	US	CA	EU	AU	PH	JP	KR	CN	NZ
Paraquat dichloride	1910-42-5	No	No	EIN	Yes	Yes	Yes	Yes	No	Yes
Ammonium chloride	12125-02-9	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes
Methyl alcohol	67-56-1	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes

## \* \* \*Section 16 - OTHER INFORMATION\* \* \*

### Summary of Changes

Revision 2.0000, 20 March 2013: Major corrections in section 2 'physical hazards' and section 14 'transport information'.

### Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

### Other Information

SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE, except that the product shall conform to contracted specifications, and that the product does not infringe any valid United States or Canadian patent. No claim of any kind shall be greater in amount than the purchase price of the quantity of product in respect of which damages are claimed. In no event shall Seller be liable for incidental or consequential damages, whether Buyer's claim is based on contract, breach of warranty, negligence or otherwise.

End of Sheet 74530-48