



SAFETY DATA SHEET

SDS ID: 74530-48

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	HELMQUAT 3SL
Product use / type:	Herbicide
EPA Registration No.:	74530-48
Chemical name / active ingredient(s):	Paraquat dichloride
Manufacturer / Registrant:	Helm Agro US, Inc. 401 E. Jackson St., Suite 1400 Tampa, FL 33602
Manufacturer's Telephone:	813-621-8846
Email:	info@helmagro.com
Chemical emergencies:	1-800-424-9300 (Chemtrec)

2. HAZARDS IDENTIFICATION

This chemical is considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200).

Classification

Serious Eye Damage / Eye Irritation	Category 2B
Skin Corrosion / Irritation	Category 2
Acute Oral	Category 4
Acute Inhalation	Category 1

EMERGENCY OVERVIEW

Signal Word: DANGER

Pictograms:



Appearance: Blue to green

Physical state: Liquid

Odor: Characteristic

Hazard Statements:

- H330 – Fatal if inhaled.
- H302 – Harmful if swallowed.
- H319 – Causes serious eye irritation.
- H315 – Causes skin irritation.

Precautionary Statements:

- Wash hands thoroughly after handling.
- Do not breathe mists, vapors or spray.
- In case of inadequate ventilation wear respiratory protection.
- Do not eat, drink or smoke when using this product.
- Wear eye or face protection. Wear protective gloves.
- Use only outdoors or in a well-ventilated areas. Use respirator if ventilation is inadequate.

- IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison control center, doctor or 911. Treatment is urgent.
- IF IN EYES: Rinse cautiously for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists get medical attention.
- IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs get medical advice. Take off contaminated clothing and wash before reuse.
- IN CASE OF FIRE: Use water spray, alcohol resistant foam, dry chemical or carbon dioxide.

- Store locked up. Store in a cool well-ventilated place. Keep container tightly closed.

- Dispose of content and container in accordance with local and national regulations.
- Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Other Information / Potential Hazards:

May be harmful to aquatic life.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight %
Paraquat dichloride (1,1'-dimethyl-4,4'-bipyridinium dichloride)	1910-42-5	43.8
Ammonium chloride	12125-02-9	1 - 5**
Methyl alcohol	67-56-1	1 - 5**

** Exact concentration of components withheld as a trade secret.

4. FIRST AID MEASURES

If swallowed:	<ul style="list-style-type: none"> • SPEED IS ESSENTIAL. Immediate medical attention is required. If available, give an adsorbent such as activated charcoal, bentonite, or Fuller's Earth. • Call a poison control center or doctor immediately for treatment advice. • Do not give anything by mouth to an unconscious person. • Have person sip glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor.
If inhaled:	<ul style="list-style-type: none"> • Move person to fresh air. • The odor of this product is from the stenching agent, which has been added, not from the paraquat.

SAFETY DATA SHEET

HELMQUAT 3SL

SDS ID: 74530-48

	<ul style="list-style-type: none">• If person is not breathing, call 911 or get medical help.• Call a poison control center or doctor for further treatment advice.
If in Eyes:	<ul style="list-style-type: none">• Hold eye open and rinse 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 center or doctor for treatment advice.
If on skin or clothing:	<ul style="list-style-type: none">• Remove contaminated clothing and shoes.• Rinse skin with plenty of water for 15-20 minutes.• Call a poison control center or for further treatment advice.
Note to Physician:	Administer either activated charcoal (100g for adults or 2g/kg body weight in children) NOTE: The use of gastric lavage without administration of an adsorbent has not shown any clinical benefit. Do not use supplemental oxygen. Eye splashes from concentrated material should be treated by an eye specialist after initial treatment. With the possibility of late onset corneal ulceration, it is advised that patients with paraquat eye injuries are reviewed by an eye specialist the day after first presentation. Use treatment that is appropriate for chemical burns. Intact skin is an effective barrier to paraquat, however contact with irritated or cut skin or repeated contact with intact skin may result in poisoning.

5. FIRE-FIGHTING MEASURES

Flammable properties:	Non-flammable.
Extinguishing media	Water spray, alcohol resistant foam, CO ₂ , dry chemical.
Unsuitable extinguishing media:	High pressure water streams.
Firefighting measures:	Evacuate area. Use extinguishing media appropriate for surrounding fire. Keep fire-exposed containers cool with water spray. Do not allow contaminated firefighting water and spillage to enter sewers, drains and waterways. Contain run-off water with temporary dike.
Protective equipment and precautions for firefighters:	Wear full protective firefighting gear including self-contained breathing apparatus pressure demand (MSHA/NIOSH approved or equivalent).
Hazardous decomposition products:	Oxides of: carbon, chlorine and nitrogen. May release irritating and toxic vapors due to thermal decomposition.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Wear protective gloves / clothing and eye protection. Refer to section 8 for personal protective equipment. Avoid contact with eyes, skin and clothing. Ensure adequate ventilation. Isolate area and deny entry by
------------------------------	---

SAFETY DATA SHEET

HELMQUAT 3SL

SDS ID: 74530-48

unnecessary people. Clean spill immediately.

Environmental precautions: Prevent spillage from contaminating soil or entering waterways, sewers, drains and confined areas.

Methods for containment: Contain spill with inert material (e.g. sand, silica gel, universal binder). Clean spills immediately.

Methods for cleanup: Soak up entire area with inert absorbent material and sweep or shovel into properly labeled disposal container. Wash area thoroughly with hard water and detergent. Soak up wash water with additional absorbent and place in disposal container. Seal container and arrange for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling: Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Do not eat, drink, or smoke when using this product. Avoid breathing vapors or spray mists.

Precautions for safe storage: 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.

Incompatible storage situations: Separate pesticides during storage to prevent cross-contamination of other pesticides, fertilizers, food, and feed. Do not mix or store in aluminum containers or systems having aluminum fittings.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure Guidelines:

	NIOSH	ACGIH	OSHA
Paraquat dichloride (1910-42-5)	0.1 mg/ m3 REL respirable	0.5 mg/m3 TLV-TWA as the cation	0.5 mg/m3 PEL respirable dust
Ammonium chloride (12125-02-9)	10 mg/m3 REL 20 mg/m3 STEL	10 mg/m3 TLV-TWA fume	10 mg/m3 TWA fume
Methyl alcohol (67-56-1)	260 mg/m3 REL	15 mg/L Biological exposure index	260 mg/m3 PEL

Commercial applicators and/or on-farm applications should refer to the product label for personal protection equipment.

Engineering controls: Ensure adequate ventilation, especially in confined areas. Provide emergency eye wash and/or quick drench shower in work area.

SAFETY DATA SHEET

HELMQUAT 3SL

SDS ID: 74530-48

Personal protective equipment

Eye / face protection:	Wear chemical-tight goggles. If splashing is likely wear a full face shield.
Body / skin protection:	Long sleeved shirt, long pants, shoes plus socks.
Hand protection:	Wear chemical resistant gloves / hand protection.
Respiratory protection:	If handling without sufficient ventilation, wear a mist filtering NIOSH approved respirator with N, R P or HE organic filters.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Appearance:	Blue to green
Odor:	Characteristic, distinct
pH:	5.35
Boiling point:	No information available
Flash point:	Non-flammable
Relative density:	1.148 g/ml
Water solubility:	Miscible
Viscosity:	No information available
Log pow:	No information available

10. STABILITY AND REACTIVITY

Reactivity / chemical stability:	Stable under normal temperature and conditions.
Conditions / Materials to avoid:	Keep away from heat, sparks and flame. Oxidizing agents, aluminum, copper and zinc.
Hazardous decomposition products:	Oxides of carbon, oxides of nitrogen and chloride.
Hazardous reactions:	Not expected under normal conditions of handling and use.

11. TOXICOLOGICAL INFORMATION

Product toxicology data:

Acute oral LD50:	Rat LD ₅₀ : 1030 mg/kg
Acute dermal LD50:	Rat LD ₅₀ : >5000 mg/kg
Acute inhalation LC50:	Rat 4-hr LC ₅₀ : <0.052 mg/l
Eye irritation:	Moderately irritating to the eye
Skin irritation:	Moderately irritating to skin.
Sensitization:	Non-sensitizing in animal studies.

Component toxicology:

Paraquat dichloride (1910-42-5)

Acute oral LD50:	Rat LD ₅₀ : 57 mg/kg
Acute dermal LD50:	Rat LD ₅₀ : 80 mg/kg

SAFETY DATA SHEET

HELMQUAT 3SL

SDS ID: 74530-48

Acute dermal LD50: Ammonium chloride (12125-02-9)	Rabbit LD ₅₀ : 325 mg/kg
Acute oral LD50: Methyl alcohol (67-56-1)	Rat LD ₅₀ : 1410 mg/kg
Acute oral LD50:	Rat LD ₅₀ : 5628 mg/kg
Acute dermal LD50:	Rat LD ₅₀ : 15800mg/kg
Acute inhalation LC50:	Rat 4-hr LC ₅₀ : 83.2 mg/l
Acute inhalation LC50:	Rat 4-hr LC ₅₀ : 64000 ppm
Carcinogenicity:	No component of this product present at 0.1% or greater is listed by IARC, OSHA, NIOSH or NTP.
Mutagenic effects:	No information available

12. ECOLOGICAL INFORMATION

Environmental Hazards:	May be harmful to aquatic life. Do not apply directly to water, or to areas where surface water is present.
Component Ecotoxicity:	
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: 11-19 mg/L static 48-hr EC50 Daphnia magna: 9.1-12.2 mg/L static
Invertebrate:	
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 EC50 Daphnia magna: 202 mg/L

13. DISPOSAL CONSIDERATIONS

Product disposal:	Wastes resulting from the use of this product that cannot be used or chemically reprocessed must be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, State or local procedures. Do not allow pesticide or rinse waters to enter or run off into storm drains, drainage ditches, gutters or surface waters.
Container disposal:	Emptied container contains product residue. Observe all labeled safeguards until container is destroyed or recycled. Clean container promptly after emptying. Do not reuse container.

14. TRANSPORT INFORMATION

U.S. DOT:	UN2922, Corrosive liquids, toxic, n.o.s. (Paraquat dichloride), 8 (6.1), PG III See Section 15 for reportable quantity (RQ).
------------------	---

15. REGULATORY INFORMATION

U.S. Federal Regulations:

SAFETY DATA SHEET

HELMQUAT 3SL

SDS ID: 74530-48

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Signal word: DANGER

EPA Registration No.: 74530-48

May be fatal if swallowed. Fatal if inhaled. Wear a dust/mist respirator as specified in the PPE section of this label. Corrosive. Causes irreversible eye damage. Wear protective eyewear. Harmful if absorbed through skin. Do not breathe spray mist. Do not get in eyes, or on skin or clothing. IMPORTANT: Inhalation is an unlikely route of exposure due to low vapor pressure and large spray droplet size, but mucosal irritation or nose bleeds may occur. Prolonged contact with this concentrated product can irritate your skin.

Personal Protective Equipment (PPE)

Applicators and other handlers (other than mixers and loaders) must wear: Long-sleeve shirt and long pants; Shoes plus socks; Protective eyewear (goggles, face shield, safety glasses). Chemical Resistant Gloves such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC), or Viton. A NIOSH approved particulate filtering respirator equipped with N, R or P class filter media. The respirator should have a NIOSH approval number prefix TC-84A.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Environmental Hazards

This product is toxic to wildlife. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash waters.

Physical and Chemical Hazards

This product is mildly corrosive to aluminum and produces hydrogen gas which may form a highly combustible gas mixture. Do not mix or store in containers, spray tanks, nurse tanks, or such systems made of aluminum or having aluminum fittings. This product is compatible with high density polyethylene and rubber lined steel containers.

TSCA:	All components of this product are listed on or are exempt from listing on the TSCA chemical inventory.
SARA 302/304:	Paraquat dichloride; RQ=10 pounds or 2.4 gallons
SARA 311/312:	Acute health; Chronic health
SARA 313 (EPCRA):	Paraquat dichloride; Methanol; Ammonium Chloride
CERCLA:	Ammonium Chloride-5000 lb final RQ; 2270 kg final RQ Methanol-5000 lb final RQ; 2270 kg final RQ

U.S. State Regulations:

State Right-to-Know Regulations:

Component	CAS No.	CA	LA	MA	MN	NJ	PA
-----------	---------	----	----	----	----	----	----

SAFETY DATA SHEET

HELMQUAT 3SL

SDS ID: 74530-48

Paraquat dichloride	1910-42-5	X	X	X	X	X	X
Ammonium chloride	12125-02-9	X		X	X	X	X
Methyl alcohol	67-56-1	X		X	X	X	X

California Proposition 65: This product contains one or more substances known to the State of California to cause cancer and/or reproductive/developmental effects.

16. OTHER INFORMATION

NFPA Ratings:	Health	Fire	Instability
	3	1	0

Revision No.: 3.0
Revision Date: 17 November 2017
Revision Note: Section 4 – Redundant text

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; 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; GHS – Global Harmonized System; 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 Association; 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; REL – Recommended Exposure Limit; 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 / Disclaimer

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 Safety Data Sheet