



SAFETY DATA SHEET (SDS) ID: EPA Reg. No. 74530-48, HELMQUAT 3SL Herbicide

SECTION 1: Product and Company IDs

Product name: HELMQUAT 3SL
Product use / type: Herbicide
Restrictions on use: See product label.
SDS ID: EPA Reg. No.: 74530-48
Chemical name / active ingredients: See Section 3.
Manufacturer / Registrant Info:
HELM Agro US, Inc. 401 E. Jackson St.
Suite 1600, Tampa, FL 33602
(813)-621-8846, info@helmagro.com
Chemical Emergency Number: 1-800-424-9300 (Chemtrec)

SECTION 2: Hazard Communication

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

Signal Word: Danger. **Pictograms:**



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

Hazard Statements:

- Fatal if inhaled.
- Harmful if swallowed.
- Causes serious eye irritation.
- Causes skin irritation.
- May be fatal if swallowed and enters airways (potential aspiration hazard).

Precautionary Statements:

- Refer Section 4, First Aid Measures.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Wash thoroughly after handling.
- Avoid breathing mist/vapors/spray.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Do not eat drink or smoke when using this product.
- Wear protective gloves/eye protection.
- Use only outdoors or in a well-ventilated area.
- Wear respiratory protection.
- If experiencing respiratory symptoms: Immediately call a poison center.
- If exposed or concerned, get medical attention. Call POISON CENTER or doctor/physician if you feel unwell.
- In case of fire: Extinguish with carbon dioxide, dry chemical, foam or water spray.
- Refer Sections 7 and 13. Store locked up. Dispose in accord with regulation.

Other Information / Potential Hazards:

- May be harmful to aquatic life.

SECTION 3: Ingredient Composition

Chemical Name	CAS #	% Composition (exact values may be withheld as trade secrecy)
Paraquat dichloride (1,1'-dimethyl- 4,4'-bipyridinium dichloride)	1910-42-5	43.8
Ammonium chloride	12125-02-9	1-5**
Methyl alcohol	64742-94-5	1-5**
Other:	N/R as trade** secrecy	**

** Values are not product specifications.

SECTION 4: First Aid Measures

If swallowed: 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. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person. **If on skin or clothes:** Wash and remove contaminated clothing and shoes. Wash before reuse. Rinse skin immediately with plenty of water for 15 or 20 minutes. Call a poison control center/doctor for treatment advice. Sensitized persons should avoid reuse. **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 center or doctor for treatment advice. **If inhaled:** Move person to fresh air and get immediate medical attention. **The odor of this product is from the stenching agent, which has been added, not from the paraquat.** If person is not breathing, call 911 or get medical help, then give artificial respiration, preferably with the aid of a pocket mask equipped with a one-way valve. Call a poison control center or doctor for further treatment advice. **First Aid Note:** Have this safety data sheet, the product container or label with you when calling a poison control center or doctor or going for treatment. **Physician:** Treat symptomatically. 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.

SECTION 5: Fire Fighting Measures

Flammable properties: Not flammable. **Extinguishing media:** Water fog, dry chemical, foam or CO2. **Unsuitable extinguishing media:** High pressure water streams. **Firefighting measures:** Evacuate area. Use extinguishing media appropriate for surrounding fire. Prevent contaminated firefighting waters and spillage from entering sewers, drains and waterways. Contain run-off water with temporary dike. Prevent use of contaminated buildings, area and equipment until decontamination. **Protective equipment and precautions for firefighters:** Avoid inhalation. Wear full protective firefighting gear including self-contained breathing apparatus pressure demand (MSHA/NIOSH approved or equivalent). Decontaminate equipment after use. **Hazardous decomposition products:** Oxides of carbon, chlorine and nitrogen. May release irritating and toxic vapors due to thermal decomposition.

SECTION 6: Accidental Release Measures

Personal precaution: Isolate and post, and clean spill area. Keep unnecessary personnel, pets and livestock from spill area. Wear protective gloves / clothing and eye protection. Avoid breathing, wear protection. Avoid contact with eyes, skin and clothing. Ensure adequate ventilation. See section 8 for personal protective equipment. **Environmental precautions:** Prevent further spillage if safe to do so. Prevent entry into waterways, sewers, basements, or confined areas. Do not flush into surface water or sanitary sewer system. Avoid unintentional releases to the environment. Report spills as required by local and federal regulations. **Methods for containment:** Contain spill with inert material (e.g. sand, silica gel, binder). Clean immediately. **Methods for cleanup:** Soak and pick up absorbent by shovel and transfer to properly labeled containers for disposal in accordance with regulations. Observe label for further safeguards, containment, and disposal.

SECTION 7: Handling and Storage

Precautions for safe handling: Wear protective attire. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mist. Wash thoroughly after handling. Do not eat, drink, or smoke when using this product. Avoid contamination of work clothing; remove and clean after handling. **Precautions for safe storage:** Store and handle in accordance with good industrial hygiene practices. Keep container tightly closed and locked up. Store in original container in a cool, dry and well-ventilated place away from children and animals. Keep away from incompatible materials, heat, and direct sunlight. **Incompatible storage situations:** Store product in original container only. Keep container closed when not in use, away from food or feed, fertilizer and other pesticides. Do not put formulation or spray solution in food or drink containers. Do not mix or store in aluminum containers or systems having aluminum fittings.



Store in a cool, dry place and avoid excess heat. Protect container from physical damage. Do not contaminate water, food or feed by storage or disposal or cleaning of equipment. Keep away from strong oxidizing agents.

SECTION 8: Exposure Control / Protection

Commercial

applicators and/or on-farm applications should refer to the product label for personal protection equipment. The following recommendations for exposure controls and personal protection are intended for the manufacture, formulation, and packaging of this material. All forms of application should refer to the product label for personal protection equipment. **This product contains hazardous materials with occupational exposure limits established by the region-specific regulatory bodies:**

Paraquat dichloride (1910-42-5)	0.1 mg/m ³ REL respirable	0.5 mg/m ³ TLV-TWA as the cation	0.5 mg/m ³ PEL respirable dust
Ammonium chloride (12125-02-9)	10 mg/m ³ REL 20 mg/m ³ STEL	10 mg/m ³ TLV-TWA fume	10 mg/m ³ TWA fume
Methyl alcohol (67-56-1)	260 mg/m ³ REL	15 mg/L Biological exposure index	260 mg/m ³ PEL

Engineering controls: Emergency eye wash/drench. Shower or suitable water supply near the work area. Ensure adequate ventilation or provide local exhaust. **Personal protective equipment eye/face protection:** Safety glasses with side-shields. If potential for eye contact to occur, wear chemical tight goggles. **Body/skin protection:** Long sleeved shirt, long pants, shoes plus socks. Applicators must wear chemical resistant clothing and footwear plus socks. Wash work clothing before reuse. Launder separately from other laundry. **Hand protection:** Wear chemical resistant gloves / hand protection. **Respiratory protection:** If handling without sufficient ventilation or excess airborne exposure, wear a dust/mist filtering respirator with organic cartridge(s) or pesticide rated filters. Consult personal protective equipment manufacturers recommendations for recommendation, use, cleaning and maintenance.

SECTION 9: Physical & Chemical Properties

Physical state: Liquid.

Appearance: Blue to green. **Odor:** Distinct. **pH:** 5.35. **Melting point:** Not available. **Boiling point:** No information available. **Flash point:** Non-flammable. **Explosive properties:** N/A. **Autoignition temperature:** No information available. **Oxidizing properties:** No information available. **Relative density:** 1.11-1.15 g/mL. **Water solubility:** Miscible. **Vapor pressure:** N/A. **Viscosity:** N/A. **Partition coefficient:** N/A. **Other as commonly listed:** No info available.

SECTION 10: Stability & Reactivity

Reactivity / chemical

stability: None expected. Stable under normal temperature and conditions. **Conditions / Materials to avoid:** Extreme heat, sparks, incompatible agents, strong oxidizers, oxidizing agents, aluminum, copper and zinc. **Hazardous decomposition products:** Oxides of carbon, oxides of nitrogen and chloride. **Hazardous reactions:** Not expected under normal use.

SECTION 11: Toxicological Information

See Section 4 for

information on likely routes of exposure and effects. May be harmful if inhaled. **Product toxicology:** **Acute oral LD50:** Rat LD50: >1030 mg/kg. **Acute dermal LD50:** Rat LD50: >5000 mg/kg. **Acute inhalation LC50:** Rat LC50: < 0.052 mg/L. **Skin corrosion/irritation:** Causes mild/moderate skin irritation. **Serious eye damage/irritation:** May cause eye irritation. **Respiratory or skin sensitization:** It is not a skin sensitizer in animal tests. **Germ cell mutagenicity:** Not available. **Carcinogenicity:** Not available. **Reproductive toxicity:** Not available. **STOT - single exposure:** Not available. **STOT - repeated exposure:** Not available. **Aspiration hazard:** Not available.

Component toxicology: **Paraquat dichloride (1910-42-5), Acute oral LD50:** Rat LD50: 57 mg/kg. **Acute dermal LD50:** Rat LD50: 80 mg/kg. **Acute dermal LD50:** Rabbit LD50: 325 mg/kg. **Ammonium chloride (12125-02-9), Acute oral LD50:** Rat LD50: 1410 mg/kg. **Methyl alcohol (67-56-1), Acute oral LD50:** Rat LD50: 5628 mg/kg. **Acute dermal LD50:** Rat LD50: 15800mg/kg. **Acute inhalation LC50:** Rat 4-hr LC50: 83.2 mg/l. **Acute inhalation LC50:** Rat 4-hr LC50: 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.

SECTION 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. **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, 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 EC50 Daphnia magna: 202 mg/L. **Persistence and degradability:** Not listed. **Bioaccumulative potential:** Not listed. **Mobility in soil:** Not listed. **Results of PBT and vPvB assessment:** Not listed.

SECTION 13: Disposal Information

Product disposal:

Wastes resulting from the use of this product that cannot be used must be disposed in accordance with applicable Federal, State or local regulations at an approved waste disposal facility. Keep out of drains, sewers, ditches and water ways. **Container disposal:** Emptied container contains product residue. Avoid breathing vapors. Observe all labeled safeguards until container is destroyed to prevent unauthorized use of used container. Clean container promptly after emptying. **Refer product label.** See Section 15.

SECTION 14: Transport Information

UN2922, Corrosive liquids, toxic, n.o.s. (Paraquat dichloride), 8 (6.1), PG III.

SECTION 15: Regulatory Information

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. **Hazards to Humans and Domestic Animals:** **DANGER:** May be fatal if swallowed. Fatal if inhaled. Corrosive. Causes irreversible eye damage. Harmful if absorbed through skin. Do not breath spray mist. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse. **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. **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. **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. HELMQUAT 3SL is a contact herbicide that desiccates all green plant tissue. Paraquat dichloride, the active ingredient in this product is toxic to nontarget crops and plants if off-target movement occurs because it desiccates all green plant tissue. Extreme care must be taken to ensure that off-target drift is minimized to the greatest extent possible. Refer to the local and state laws, regulations, guidelines, and spray drift information contained in the "Directions for Use" section for proper application to avoid off-target movement. Do not apply under conditions involving possible drift to food, forage, or other plantings that might be damaged or the crops thereof rendered unfit for sale, use, or consumption. Do not apply when weather conditions favor drift from treated areas. To avoid drift, do not make aerial applications during periods of thermal inversion. **NON-TARGET ORGANISM ADVISORY:** This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift. **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. **CERTIFIED APPLICATOR TRAINING:** Applicators must complete an EPA approved paraquat training listed on the following website <https://www.epa.gov/pesticide-worker-safety/paraquat-dichloride-training-certified-applicators>. The training must be completed a minimum of every three years. **Read EPA registered product label and advisories, EPA Registration No.:** 74530-48.



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. Refer Section 2, 11. **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.

State Right-to-Know Regulations:

Component	CAS No.	CA	LA	MA	MN	NJ	PA
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.

SECTION 16: Other Information

NFPA Ratings:	Health = 3	Fire = 1	Instability = 0
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Acronyms which may or may not be referenced: 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; CST - Centistokes; 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; FIFRA - Federal Insecticide, Fungicide and Rodenticide Act; 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; MP - Marine Pollutant; 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; 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.

Revision Date: December 6th, 2023. **Revision no. 4. Reason for Revision:** SDS review and truncate. Confirm/Update Section 14. Review, truncate, and/or update Sections 2, 15 (PRN 2012-1), 16. Address change. Other edits/updates.

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