



SAFETY DATA SHEET

SDS ID: 74530-71

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	ARGOS Herbicide
Product use / type:	Herbicide
Restrictions on use:	See product label
EPA Registration No.:	74530-71
Chemical name / active ingredient(s):	2-[4-(Methylsulfonyl)-2-nitrobenzoyl]-1,3-cyclohexanedione (Mesotrione)
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 not considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200).

Classification: Not classified as hazardous according to the Global Harmonized System.

EMERGENCY OVERVIEW

Signal Word: None

Pictogram: Not applicable

Appearance: Off-white

Physical state: Liquid

Odor: Mild, aromatic-like

Hazard Statements:

- None applicable

Precautionary Statements:

- Wear protective clothing and water proof gloves

Other Information / Potential Hazards:

Contact with eyes may cause mild irritation.

May be harmful if swallowed.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight % **
Mesotrione: 2-[4-(Methylsulfonyl)-2-nitrobenzoyl]-1,3-cyclohexanedione	104206-82-8	40.0

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Ethylene glycol	107-21-1	<15.0
Other ingredients	Trade secret	>45.0

** Exact concentration of components withheld as a trade secret. Values are not product specifications.

4. FIRST AID MEASURES

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 or 20 minutes. If irritation develops, call a poison control center or doctor for treatment advice.
If inhaled:	<ul style="list-style-type: none">• Move person to fresh air.• 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.
If swallowed:	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Rinse mouth with water.• 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.
First Aid Note:	<ul style="list-style-type: none">• Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

5. FIRE-FIGHTING MEASURES

Flammable properties:	Not flammable.
Extinguishing media:	Water fog, dry chemical, foam or CO ₂
Unsuitable extinguishing media:	High pressure water streams.
Firefighting measures:	Use extinguishing media appropriate for surrounding fire. Prevent contaminated firefighting waters and spillage from entering sewers, drains and waterways.
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 and nitrogen. May release irritating and toxic vapors due to thermal decomposition.

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6. ACCIDENTAL RELEASE MEASURES

- Personal precautions:** Isolate and post spill area. Wear protective gloves / clothing and eye protection. Avoid contact with eyes, skin and clothing. Ensure adequate ventilation.
- Environmental precautions:** Prevent further spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas. Do not flush into drains, surface water or sanitary sewer system.
- Methods for containment:** Contain spill with inert material (e.g. sand, silical gel, binder).
- Methods for cleanup:** Pick up mechanically by shovel and transfer to properly labeled containers for disposal.

7. HANDLING AND STORAGE

- Precautions for safe handling:** Avoid contact with eyes, skin and clothing. Wash thoroughly after mixing loading and applying this product. Do not eat, drink, or smoke when using this product.
- Precautions for safe storage:** Store in a secure area, keep out of reach of children and domestic animals. Keep container tightly closed. Store in a cool and well-ventilated place.
- Incompatible storage situations:** Separate pesticides during storage to prevent cross-contamination of other pesticides, fertilizers, food, and feed.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

The following recommendations for exposure controls and personal protection are intended for the manufacture, formulation and packaging of this material. Commercial applicators and on-farm applications should refer to the product label for personal protection equipment.

Exposure Guidelines:

Exposure Guidelines:	This product does not contain hazardous substances with occupational exposure limits established by the region specific regulatory bodies.
Engineering controls:	Ensure adequate ventilation, especially in confined areas.
Personal protective equipment	
Eye / face protection:	Safety glasses with side-shields. If splashing is likely, wear tightly fitting chemical splash goggles.
Body / skin protection:	Long sleeved shirt, long pants, shoes plus socks. Wash work clothing before reuse.

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Hand protection:	Wear gloves / hand protection.
Respiratory protection:	If handling without sufficient ventilation, wear a dust / mist filtering respirator with organic cartridge(s) or pesticide rated filters.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Viscous liquid
Appearance:	Off-white to beige
Odor:	Mild, aromatic-like
pH:	3.16 at 20°C in 1% w/v aqueous solution
Boiling point:	186° C / 367° F
Flash point:	Not flammable
Relative density:	1.19 g/cm ³ at 20° C
Water solubility:	Miscible in water
Viscosity:	64 - 112 mPa at 20° C
n-Octanol/Water Partition Coefficient:	Not applicable

10. STABILITY AND REACTIVITY

Reactivity / chemical stability:	Stable under normal temperature and conditions.
Conditions / Materials to avoid:	Extreme heat, sparks and fire. Galvanized steel.
Hazardous decomposition products:	Under fire conditions, oxides of carbon, nitrogen and sulfur may be emitted.
Hazardous reactions:	None expected under normal conditions of handling and use.

11. TOXICOLOGICAL INFORMATION

Product toxicology:

Acute oral LD50:	Rat LD ₅₀ : >2000 mg/kg
Acute dermal LD50:	Rat LD ₅₀ : >2000 mg/kg
Acute inhalation LC50:	Rat 4-hr LC ₅₀ : >5.13 mg/L
Eye irritation:	Non-irritating.
Skin irritation:	Non-irritating.
Sensitization:	Not a sensitizer.
Carcinogenicity:	No component of this product present at levels greater than or equal to 0.1% is listed with NTP, IARC or OSHA.
Mutagenic effects:	Not mutagenic (Mesotrione)

12. ECOLOGICAL INFORMATION

Environmental Hazards:	Keep out of any body of water. See product label for additional environmental precautions.
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Ecotoxicity (Mesotrione):	96-hour LC ₅₀ : >100 mg/L <i>Onchorhynchus mykiss</i> 48-hour EC ₅₀ : 60.4 mg/L <i>Daphnia magna</i>
Persistence and degradability:	No information available.
Bioaccumulation:	Low potential for bioaccumulation.
Mobility in soil:	High potential for run off, moderate to high soil mobility.

13. DISPOSAL CONSIDERATIONS

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.
Container disposal:	Emptied container retains product residue. Observe all labeled safeguards until container is destroyed or offered for recycling. Clean container promptly after emptying. Do not reuse container.

14. TRANSPORT INFORMATION

U.S. DOT:	Not regulated by DOT in non-bulk packages. UN3082, Environmentally hazardous substance, liquid, n.o.s.(Mesotrione), 9, III, Marine pollutant
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15. REGULATORY INFORMATION

U.S. Federal Regulations:

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: Caution

EPA Registration No.: 74530-71

Hazards to Humans and Domestic Animals

Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes, or 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 reuse.

Environmental Hazards

DO NOT apply directly to water, 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 washwater or rinsate.

TSCA:	Exempt, regulated under FIFRA.
SARA 311/312:	None listed
SARA 313:	Ethylene glycol (CAS 107-21-1) <15%
CERCLA:	Ethylene glycol (CAS 107-21-1) RQ 5000 lbs.

U.S. State Regulations:

State Right-to-Know Regulations:

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Component	MA	NJ	PA
Ethylene glycol	X	X	X

California Proposition 65: This product does not contain substances known to the state of California to cause cancer and/or reproductive/developmental effects.

16. OTHER INFORMATION

<u>NFPA Ratings:</u>	Health	Fire	Instability
	1	0	0

Revision No.: 1.0
Revision Date: 18 August 2016
Revision Note: Initial release

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; 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; 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; RQ - Reportable Quantity; 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