



SAFETY DATA SHEET

SDS ID: 74530-85

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	FEARLESS XTRA HERBICIDE
Product use / type:	Herbicide
Uses advised against / restrictions:	See label.
EPA Registration No.:	74530-85
Chemical name / synonym / active ingredient(s):	2-Chloro-N-(ethoxymethyl)-N-(2-ethyl-6-methylphenyl) acetamide (Acetochlor) and 6-Chloro-N-ethyl-N'-(1-methylethyl)-1,3,5-triazine-2,4-diamine (Atrazine)
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

Acute toxicity – oral	Category 4
Skin sensitization	Category 1
Specific target organ toxicity – single exposure	Category 3
Specific target organ toxicity – repeat exposure	Category 2
Carcinogenicity	Category 2

EMERGENCY OVERVIEW

Signal Word: WARNING

Pictogram:



Appearance: Pink

Physical state: Liquid

Odor: Mild

Hazard Statements:

- Harmful if swallowed.
- May cause an allergic skin reaction

- May cause respiratory irritation
- Suspected of causing cancer
- May cause damage to kidney or liver through prolonged or repeated exposure

Precautionary Statements:

- 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.
- 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 SWALLOWED: Call a poison control center/doctor or if you feel unwell. Rinse mouth.
- IF ON SKIN: Wash with plenty of soap and water.
- If skin irritation or rash occurs: Get medical advice/attention.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- 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.
- Contaminated work clothing must not be allowed out of the workplace.
- Do not induce vomiting.
- Wash contaminated clothing before reuse.
- Keep container tightly closed. Store locked up.
- Dispose of contents/container in accordance with local/state/federal regulations.

Other Information / Potential Hazards:

Toxic to aquatic life.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight %
2-Chloro-N-(ethoxymethyl)-N-(2-ethyl-6-methylphenyl) acetamide (Acetochlor)	34256-82-1	46.3
6-Chloro-N-ethyl-N'-(1-methylethyl)-1,3,5-triazine-2,4-diamine (Atrazine)	1912-24-9	18.3
Furilazole (safener)	121776-33-8	<=2.0
Other ingredients	-	<=34.0**

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

4. FIRST AID MEASURES

If swallowed:	<ul style="list-style-type: none"> • 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.
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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 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 immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice. Sensitized persons should avoid further contact and reuse of contaminated clothing.
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.
Symptoms, both acute and delayed:	<ul style="list-style-type: none">• May cause moderate temporary eye irritation.• May cause an allergic skin reaction.• May be harmful if inhaled or if swallowed.
Note to Physician:	Treatment is controlled removal of exposure followed by symptomatic and supportive care.

5. FIRE-FIGHTING MEASURES

Flammable properties:	Not flammable.
Extinguishing media:	Water fog, dry chemical, foam, carbon dioxide (CO ₂)
Unsuitable extinguishing media:	High pressure water streams.
Specific material hazards	Under fire conditions, may emit irritating vapors, nitrogen oxide, carbon monoxide and hydrogen chloride.
Firefighting measures:	Use extinguishing media appropriate for surrounding fire. Use minimal water to prevent environmental contamination. 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). Decontaminate equipment after use.

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, lakes, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. If spill is on soil near desirable trees or plants remove contaminated soil after initial clean-up.
- Methods for containment:** Dike to contain spill with inert material (e.g. sand, silica gel, or binder) for transfer to disposal containers.
- Methods for cleanup:** Pick up and transfer to properly labeled containers for disposal. Thoroughly clean tools and contaminated surfaces with detergent and water. Place rinse waters into disposal containers. Place leaking containers in oversize drums for transport and disposal.

7. HANDLING AND STORAGE

- Precautions for safe handling:** Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated skin contact. Avoid breathing vapor or mists. Wash outside of gloves before removing. Wash thoroughly after handling. Do not eat, drink, or smoke when using this product. Thoroughly clean equipment after use. Remove contaminated clothing.
- Precautions for safe storage:** Store and handle in accordance with good industrial hygiene practices. Keep container tightly closed. Store in a cool and well-ventilated place. Store only in original labeled container. Keep out of reach of children. Minimum shelf-life: 2 years.
- Incompatible storage situations:** Do not store in unlined mild steel or polyvinyl chloride (PVC) containers. Separate pesticides during storage to prevent cross-contamination of other pesticides, fertilizers, food, and feed.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure Guidelines:

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

Control Parameters:

Acetochlor	No specific occupational exposure limit established.
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Atrazine	TLV (ACGIH): 2 mg/m ³ (TWA): A3: Animal carcinogen PEL (OSHA): No specific occupational exposure limit established.
Furilazole (Safener)	New Chemical Exposure Limit (NECL) 0.1 mg/m ³ TWA
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 cleaning and maintenance.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid suspension
Appearance:	Pink
Odor:	Mild
pH:	7.0 – 8.5 at 50 g/l
Melting point:	Not applicable
Boiling point	No information available
Flash point:	Does not flash.
Explosive properties:	Not explosive
Autoignition temperature	No information available
Oxidizing properties:	No information available
Relative density:	1.019 – 1.112 g/cm ³ @ 20° C
Water solubility:	Emulsifies
Vapor pressure:	No significant volatility
Dynamic viscosity:	300 cP at 10° C
Partition coefficient:	log Pow: 4.14 at 20° C (acetochlor)
Partition coefficient:	log Pow: 2.5 at 25° C (atrazine)

10. STABILITY AND REACTIVITY

Reactivity / chemical stability: Stable under normal temperature and conditions.

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Incompatible materials:	Corrosive to mild steel and aluminum. Contact with mild steel may result in color change and reduce product's ability to emulsify with water. Incompatible with polyvinyl chloride (PVC).
Hazardous decomposition products:	Combustion products: Oxides of carbon, nitrogen and hydrogen chloride.
Hazardous reactions:	Not expected under normal conditions of handling and use. Corrosive to mild steel and aluminum.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Inhalation	Harmful if inhaled.
Eye contact	Causes moderate temporary eye irritation.
Skin contact	Not expected to be an irritant when recommended use instructions are followed. May cause allergic skin reaction.
Ingestion	Harmful if swallowed.

Product toxicology (similar formulation):

Acute oral LD₅₀:	Rat =1249 mg/kg
Acute dermal LD₅₀:	Rat >5000 mg/kg
Acute inhalation LC₅₀:	No 4 hr LC ₅₀ at maximum achievable concentration.
Eye irritation:	Slightly irritating to the eye.
Skin irritation:	Essentially non-irritating. Primary irritation index: 0.4/8.0
Sensitization:	Positive incidence 10%.

Toxicology note: Above data obtained from similar formulation.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Component information:

Acetochlor (34256-82-1)	
Sensitization (experience with human exposure):	May cause sensitization in susceptible individuals.
Mutagenic effects:	Not considered genotoxic
Carcinogenicity:	Nasal and thyroid tumors in rats. Liver tumors in rats and mice. All not relevant to humans.
Reproductive / Developmental effects:	Reproductive and developmental effects in rats only in the presence of significant maternal toxicity. No developmental effects in rabbits.
Atrazine (1912-24-9)	
Mutagenic effects:	Not considered genotoxic.
Carcinogenicity:	Mammary tumors in rats. Mode of action not relevant to humans.
Reproductive / Developmental effects:	Reproductive and developmental effects in rats and rabbits only in the presence of significant maternal toxicity. No developmental effects in rats.

Furilazole (121776-33-8)

Mutagenic effects:**Carcinogenicity:**

Not considered genotoxic

Liver, testes and forestomach tumors in rats.

Liver and lung tumors in mice. Questionable relevance to humans.

Reproductive / Developmental effects:

No reproductive effects in rats. No developmental effects in rabbits. Developmental effects in rats only in the presence of maternal toxicity.

12. ECOLOGICAL INFORMATION**Environmental Hazards:**

Toxic to aquatic life.

Keep out of any body of water.

Ecotoxicity:

(Similar product)

96-hour LC₅₀: 0.36 – 1.2 mg/L *Onchorhynchus mykiss*72-hour, static, EbC₅₀: 5.01 ug/L *Selenastrum capricornutum***Ecotoxicity:**

Acetochlor (34256-82-1)

96-hour LC₅₀: 0.36 – 1.2 mg/L *Onchorhynchus mykiss*96-hour LC₅₀: 1.3 mg/L *Lepomis macrochirus*48-hour EC₅₀: 6.9 mg/L *Daphnia magna*96-hour EC₅₀: 0.27 – 1.49 ug/L *Selenastrum capricornutum***Persistence and degradability:****Bioaccumulation:**

Acetochlor soil half-life 3.4 – 29 days.

Whole fish bioaccumulation factor: 20. Rapid depuration after end of exposure.

Mobility:

Koc: 74 - 422

Ecotoxicity:

Atrazine (1912-24-9)

48-hour EC₅₀: 8.6 - 16 mg/L *Daphnia magna***Bioaccumulation:**

Whole fish bioaccumulation factor: 15. Rapid depuration after end of exposure.

Ecotoxicity:

Furilazole (121776-33-8)

96-hour LC₅₀: 6.2 mg/L *Onchorhynchus mykiss*96-hour LC₅₀: 4.6 mg/L *Lepomis macrochirus*48-hour EC₅₀: 26 mg/L *Daphnia magna*96-hour EC₅₀: 34.8 mg/L *Selenastrum capricornutum***Persistence and degradability:****Biodegradation:****Mobility:**

Furilazole aerobic soil half-life 52 – 78 days.

1% within 28 days; Not readily biodegradable.

Koc: 56 – 341 l/kg

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. Keep out of drains, sewers, ditches and water ways. Unusable material may be destroyed in a special controlled high temperature incinerator.

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Container disposal: Refer to product label for container disposal. Emptied container retains product vapor and residue. Observe all labeled safeguards until container is reconditioned or destroyed. Clean container promptly after emptying, triple rinse. Do not allow rinse waters to contaminate soil or waterways. Do not reuse containers.

14. TRANSPORT INFORMATION

U.S. DOT: Not regulated for domestic ground transportation.

This material meets the definition of a marine pollutant.

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.: 74530-85

Hazards to Humans and Domestic Animals

Harmful if swallowed or inhaled. Causes moderate eye irritation. May cause allergic skin reaction. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

TSCA: TSCA exempt; regulated under FIFRA.
SARA 311/312: Refer to section 2 for GHS hazards.
SARA 313: Atrazine (CASRN 1912-24-9)
CERCLA: No substances listed.

U.S. State Regulations:

State Right-to-Know Regulations:

Component / CASRN	MA	NJ	PA	NY
Atrazine 1912-24-9	X	X	X	-

California Proposition 65 WARNING: This product can expose you to chemicals including atrazine, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California Proposition 65 WARNING: This product can expose you to chemicals including acetochlor, which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.

16. OTHER INFORMATION

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NFPA Ratings:	Health	Fire	Instability
	2	1	0

Revision No.: 2.0
Revision Date: 09 March 2019
Revision Note: Changes to sections 3, 9, 14 & 15.

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; 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