

**Distributed by GROWMARK, Inc.**  
Safety Data Sheet  
Commercial Product

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## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name**

**Xcelerate ATZ[™] 5.6L Herbicide**

**EPA Reg. No.**

524-485-534

**Product use**

Herbicide

**Chemical name**

Not applicable.

**Synonyms**

Herbicide manufactured by Monsanto Company

**Company**

Distributed by GROWMARK, Inc., 1701 Towanda Ave., Bloomington, IL, 61701

**Telephone:** 309-557-6000

**Emergency numbers**

FOR CHEMICAL EMERGENCY, SPILL LEAK, FIRE, EXPOSURE, OR ACCIDENT Call CHEMTREC - Day or Night: 1-800-424-9300 toll free in the continental U.S., Puerto Rico, Canada, or Virgin Islands. For calls originating elsewhere: 703-527-3887 (collect calls accepted).

FOR MEDICAL EMERGENCY - Day or Night: +1 (314) 694-4000 (collect calls accepted).

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## 2. HAZARDS IDENTIFICATION

**Emergency overview**

**Appearance and odour (colour/form/odour):** Pink / Suspension / Slight

RESTRICTED USE PESTICIDE due to ground and surface water concerns.

CAUTION!

HARMFUL IF SWALLOWED

HARMFUL IF INHALED

CAUSES MODERATE EYE IRRITATION

MAY CAUSE ALLERGIC SKIN REACTION

**Potential health effects**

**Likely routes of exposure**

Skin contact, eye contact, inhalation

**Eye contact, short term**

Causes moderate but temporary eye irritation.

**Skin contact, short term**

Not expected to produce significant adverse effects when recommended use instructions are followed.

May cause allergic skin reaction.

**Inhalation, short term**

Harmful by inhalation.

**Single ingestion**

Harmful if swallowed.

Refer to section 11 for toxicological and section 12 for environmental information.

#### OSHA Status

This product is hazardous according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Active ingredient

2-chloro-N-(ethoxymethyl)-N-(2-ethyl-6-methylphenyl) acetamide; { Acetochlor }  
6-chloro-N-ethyl-N'-(1-methylethyl)-1,3,5-triazine-2,4-diamine; { Atrazine }

#### Composition

COMPONENT	CAS No.	% by weight (approximate)
Acetochlor	34256-82-1	33.4
Atrazine	1912-24-9	26.9
Furilazole (Safener)	121776-33-8	<=1.5
Water and minor formulating ingredients		<=39

The specific chemical identity is being withheld because it is trade secret information of Monsanto Company.

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### 4. FIRST AID MEASURES

Use personal protection recommended in section 8.

#### Eye contact

If in eyes, hold eye open and rinse slowly and gently for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.

#### Skin contact

Take off contaminated clothing. 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.

#### Inhalation

If inhaled, move person to fresh air. If person is not breathing, call emergency number or ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

#### Ingestion

Call 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 the poison center or doctor. Do not give anything by mouth to an unconscious person.

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### 5. FIRE-FIGHTING MEASURES

#### Flash point

Does not flash.

#### Extinguishing media

Recommended: Water, foam, dry chemical, carbon dioxide (CO<sub>2</sub>)

#### Unusual fire and explosion hazards

Minimise use of water to prevent environmental contamination.  
Environmental precautions: see section 6.

#### Hazardous products of combustion

Carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), hydrogen chloride (HCl)

### **Fire fighting equipment**

Self-contained breathing apparatus.  
Equipment should be thoroughly decontaminated after use.

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## **6. ACCIDENTAL RELEASE MEASURES**

### **Personal precautions**

Use personal protection recommended in section 8.

### **Environmental precautions**

Minimise spread.  
Contain spillage with sand bags or other means.  
Keep out of drains, sewers, ditches and water ways.  
Do NOT contaminate water when disposing of rinse waters.

### **Methods for cleaning up**

Contain spillage with sand bags or other means.  
Absorb in earth, sand or absorbent material.  
**SMALL QUANTITIES:**  
Dig up heavily contaminated soil.  
Flush spill area with water.  
Collect in containers for disposal.  
Place leaking containers in oversize leakproof drums for transport.  
Flush residues with small quantities of water.  
**LARGE QUANTITIES:**  
Refer to section 7 for types of containers.

Refer to section 13 for disposal of spilled material.

Use handling recommendations in Section 7 and personal protection recommendations in Section 8.

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## **7. HANDLING AND STORAGE**

Good industrial practice in housekeeping and personal hygiene should be followed.

### **Handling**

Avoid contact with eyes, skin and clothing.  
Avoid breathing vapour or mist.  
Wash contaminated clothing before re-use.  
Wash hands thoroughly after handling or contact.  
When using do not eat, drink or smoke.  
Do NOT taste or swallow.  
Thoroughly clean equipment after use.  
Wash outside of gloves before removing.  
Do not contaminate drains, sewers and water ways when disposing of equipment rinse water.  
Avoid prolonged or repeated contact with skin.  
Emptied containers retain vapour and product residue.  
**FOLLOW LABELLED WARNINGS EVEN AFTER CONTAINER IS EMPTIED.**  
**DO NOT CUT, DRILL, GRIND OR WELD ON OR NEAR THIS CONTAINER.**

### **Storage**

Compatible materials for storage: stainless steel, Heresite[™]-lined steel, high-density polyethylene (HDPE), polypropylene (PP), Teflon[™], polyvinylidene difluoride (PVDF)  
Incompatible materials for storage: unlined mild steel, aluminium, polyvinyl chloride (PVC), Contact with mild steel may cause color change and reduce product's ability to emulsify with water.  
Keep out of reach of children.  
Keep away from food, drink and animal feed.

Keep container tightly closed in a cool, well-ventilated place.  
Keep only in the original container.  
Use appropriate containment to avoid environmental contamination.  
Minimum shelf life: 2 years.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Airborne exposure limits

Components	Exposure Guidelines
Acetochlor	No specific occupational exposure limit has been established.
Atrazine	TLV (ACGIH): 2 mg/m <sup>3</sup> (TWA): A3: Animal carcinogen PEL (OSHA): No specific occupational exposure limit has been established.
Furilazole (Safener)	TLV (ACGIH): No specific occupational exposure limit has been established. PEL (OSHA): No specific occupational exposure limit has been established. NCEL (New Chemical Exposure Limit): 0.1 mg/m <sup>3</sup> (TWA)
Water and minor formulating ingredients	No specific occupational exposure limit has been established.

### Engineering controls

No special requirement when used as recommended.

### Eye protection

If there is significant potential for contact:  
Wear chemical goggles.

### Skin protection

Wear chemical resistant gloves.  
If there is significant potential for contact:  
Wear chemical resistant clothing/footwear.  
Applicators and other handlers must wear:  
Wear long sleeved shirt, long pants and shoes with socks.  
Follow manufacturer's instructions for cleaning/maintaining Personal Protective Equipment.  
If no such instructions for washables, use detergent and hot water.  
Wear chemical resistant apron.  
Keep and wash personal protective equipment separately from other laundry.

### Respiratory protection

If airborne exposure is excessive:  
Wear respirator.  
Full facepiece/hood/helmet respirator replaces need for chemical goggles.  
Respiratory protection programs must comply with all local/regional/national regulations.

When recommended, consult manufacturer of personal protective equipment for the appropriate type of equipment for a given application.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

Colour/colour range:	Pink
Odour:	Slight

Form:	Suspension
Physical form changes (melting, boiling, etc.):	
Melting point:	Not applicable.
Boiling point:	No data.
Flash point:	Does not flash.
Explosive properties:	No explosive properties
Auto ignition temperature:	No data.
Specific gravity:	1.11 @ 20 °C / 15.6 °C
Vapour pressure:	No significant volatility.
Vapour density:	Not applicable.
Evaporation rate:	No data.
Dynamic viscosity:	250 cP @ 10 °C; Method: Haake
Kinematic viscosity:	Not applicable.
Density:	1.1100 - 1.1140 g/cm <sup>3</sup> @ 20 °C
Solubility:	Water: Emulsifies.
pH:	7.0 - 8.5 50 g/l
Partition coefficient:	log Pow: 4.14 @ 20 °C (acetochlor)
Partition coefficient:	log Pow: 2.25 (atrazine)

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## 10. STABILITY AND REACTIVITY

### Stability

Stable under normal conditions of handling and storage.

### Oxidizing properties

No data.

### Materials to avoid/Reactivity

Corrosive to mild steel.  
Corrosive to aluminium.

### Hazardous decomposition

Thermal decomposition: Hazardous products of combustion: see section 5.

### Self-accelerating decomposition temperature (SADT)

No data.

### Hazardous polymerization

Does not occur.

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## 11. TOXICOLOGICAL INFORMATION

This section is intended for use by toxicologists and other health professionals.

Data obtained on similar products and on components are summarized below.

### Similar formulation

#### Acute oral toxicity

Rat, LD<sub>50</sub>: 1,338 mg/kg body weight  
Slightly toxic.  
FIFRA category III.

#### Acute dermal toxicity

**Rat, LD50 (limit test):** > 5,000 mg/kg body weight

Practically non-toxic.

FIFRA category IV.

No mortality.

#### **Skin irritation**

**Rabbit, 6 animals, OECD 404 test:**

Primary Irritation Index (PII): 0.6/8.0

Slight irritation.

FIFRA category IV.

#### **Eye irritation**

**Rabbit, 6 animals, OECD 405 test:**

Days to heal: 14

Slight irritation.

FIFRA category III.

#### **Acute inhalation toxicity**

**Rat, , 4 hours, aerosol:**

Slightly toxic.

FIFRA category III.

No mortality. No 4-hr LC50 at the maximum achievable concentration.

#### **Skin sensitization**

**Guinea pig, 3-induction Buehler test:**

Positive incidence: 80 %

### **Acetochlor**

#### **Mutagenicity**

**In vivo mutagenicity test(s):**

Not mutagenic.

**In vitro mutagenicity test(s):**

Mutagenic/Genotoxic in some assays.

#### **Repeated dose toxicity**

**Rat, oral, 90 days:**

NOAEL toxicity: 18 mg/kg body weight/day

Target organs/systems: none

Other effects: decrease of body weight gain, decrease of food consumption

**Rabbit, dermal, 21 days:**

NOAEL toxicity: 400 mg/kg body weight/day

Target organs/systems: none

Other effects: increased mortality, decrease of body weight gain

#### **Chronic effects/carcinogenicity**

**Rat, oral, 2 years:**

NOAEL toxicity: 10 mg/kg body weight/day

Target organs/systems: liver, kidneys

Other effects: decrease of body weight gain, organ weight change, blood biochemistry effects

NOEL tumour: 10 mg/kg body weight/day

Tumours: nose, thyroid; Tumours not relevant for man based on mechanistic data.

Tumours: liver; Tumours only above MTD.

**Mouse, oral, 18 months:**

NOAEL toxicity: 1.1 mg/kg body weight/day

Target organs/systems: kidneys, liver

Other effects: histopathologic effects, haematological effects, decrease of body weight gain

NOEL tumour: 1.1 mg/kg body weight/day

Tumours: lung, histiocytic sarcoma; Tumours probably not related to treatment.

Tumours: liver; Tumours only above MTD.

#### **Toxicity to reproduction/fertility**

**Rat, oral, 2 generations:**

NOAEL toxicity: 21 mg/kg body weight/day

NOAEL reproduction: 66 mg/kg body weight/day  
Target organs/systems in parents: liver, kidneys, thyroid  
Other effects in parents: decrease of body weight gain, organ weight change, histopathologic effects  
Target organs/systems in pups: none  
Other effects in pups: decrease of body weight gain, change in sexual maturation landmarks  
Effects on offspring only observed with maternal toxicity.

#### **Developmental toxicity/teratogenicity**

##### **Rat, oral, 6 - 18 days of gestation:**

NOAEL toxicity: 200 mg/kg body weight  
NOAEL development: 400 mg/kg body weight  
Target organs/systems in mother animal: none  
Other effects in mother animal: decrease of body weight gain  
No adverse treatment related effects in offspring.

##### **Rabbit, oral, 7 - 19 days of gestation:**

NOAEL toxicity: 100 mg/kg body weight/day  
NOAEL development: 300 mg/kg body weight/day  
Target organs/systems in mother animal: none  
Other effects in mother animal: decrease of body weight gain  
No adverse treatment related effects in offspring.

#### **Acute neurotoxicity**

##### **Rat, oral, single dose, gavage:**

NOAEL: 150 mg/kg body weight  
Other effects: decreased activity

#### **Repeated dose neurotoxicity**

##### **Rat, oral, 13 weeks, dietary:**

NOAEL: 52 mg/kg body weight/day  
Target organs/systems: none  
Other effects: decrease of body weight gain, decrease of food consumption  
Not neurotoxic.

### **EXPERIENCE WITH HUMAN EXPOSURE**

#### **Skin contact, short term, occupational:**

Skin effects: sensitization in susceptible individuals

### **Atrazine**

#### **Mutagenicity**

##### **Ames test(s):**

Not mutagenic without metabolic activation.

##### **In vivo chromosomal aberration test(s):**

Not mutagenic.

##### **In vitro DNA-repair test(s):**

Not mutagenic.

##### **Dominant lethal test(s):**

Not mutagenic.

#### **Repeated dose toxicity**

##### **Rat, oral, 90 days:**

NOAEL toxicity: 3.3 mg/kg body weight/day  
Target organs/systems: none  
Other effects: decrease of body weight gain

##### **Rabbit, dermal, 25 days:**

NOAEL toxicity: 10 mg/kg body weight/day  
Target organs/systems: spleen  
Other effects: decrease of food consumption, weight loss, organ weight change, haematological effects, histopathologic effects, blood biochemistry effects

#### **Chronic effects/carcinogenicity**

##### **Rat, oral, 24 months:**

NOAEL toxicity: 3.5 mg/kg body weight/day  
Target organs/systems: eyes, kidneys, liver, mammary gland, prostate, skeletal muscle  
Other effects: decrease of food consumption, weight loss, organ weight change, haematological effects, histopathologic effects, blood biochemistry effects  
NOEL tumour: 0.45 mg/kg body weight/day  
Tumours: mammary gland, (adenocarcinoma)  
Tumours only at or above MTD. Tumours not relevant for man based on mechanistic data.

**Mouse, oral, 91 weeks:**

NOAEL toxicity: 43 mg/kg body weight/day  
Target organs/systems: heart  
Other effects: decrease of food consumption, weight loss, organ weight change, histopathologic effects  
NOEL tumour: ~ 400 mg/kg body weight/day  
Tumours not related to treatment.

**Toxicity to reproduction/fertility**

**Rat, oral, 2 generations:**

NOAEL toxicity: 50 mg/kg diet  
NOAEL reproduction: 500 mg/kg diet  
Target organs/systems in parents: none  
Other effects in parents: decrease of body weight gain  
Target organs/systems in pups: none  
Other effects in pups: none

**Developmental toxicity/teratogenicity**

**Rat, oral, 6 - 15 days of gestation:**

NOAEL toxicity: 10 mg/kg body weight  
NOAEL development: 10 mg/kg body weight  
Other effects in mother animal: weight loss, decrease of body weight gain, decrease of survival  
Developmental effects: weight loss, delayed ossification  
Effects on offspring only observed with maternal toxicity.

**Rabbit, oral, 7 - 19 days of gestation:**

NOAEL toxicity: < 1 mg/kg body weight  
NOAEL development: 1 mg/kg body weight  
Other effects in mother animal: weight loss, decrease of survival  
Developmental effects: weight loss, post-implantation loss, delayed ossification  
Effects on offspring only observed with maternal toxicity.

**Furilazole (Safener)**

**Mutagenicity**

**In vitro and in vivo mutagenicity test(s):**

Not mutagenic on the basis of weight-of-evidence analysis.

**Repeated dose toxicity**

**Rat, oral, 3 months:**

NOAEL toxicity: 7 mg/kg body weight/day  
Target organs/systems: liver  
Other effects: decrease of food consumption, decrease of body weight gain, organ weight change, haematological effects, histopathologic effects

**Rat, dermal, 21 days:**

NOEL toxicity: 250 mg/kg body weight/day  
Target organs/systems: none  
Other effects: blood biochemistry effects

**Chronic effects/carcinogenicity**

**Rat, oral, 2 years:**

NOAEL toxicity: 0.26 mg/kg body weight/day  
Target organs/systems: liver, kidneys  
Other effects: decrease of body weight gain, organ weight change, histopathologic effects, blood biochemistry effects  
NOEL tumour: 6.03 mg/kg body weight/day

Tumours: liver, (adenoma), (carcinoma)

**Mouse, oral, 18 months:**

NOAEL toxicity: 5.9 mg/kg body weight/day

Target organs/systems: liver, lung

Other effects: increased mortality, blood biochemistry effects, organ weight change, histopathologic effects

NOEL tumour: 5.9 mg/kg body weight/day

Tumours: liver, (adenoma), (carcinoma)

Tumours: lung, (adenoma), (carcinoma)

**Toxicity to reproduction/fertility**

**Rat, oral, 2 generations:**

NOAEL toxicity: 10 mg/kg body weight/day

NOAEL reproduction: 99 mg/kg body weight/day

Target organs/systems in parents: kidneys, liver

Other effects in parents: decrease of body weight gain, histopathologic effects

Target organs/systems in pups: none

Other effects in pups: none

**Developmental toxicity/teratogenicity**

**Rat, oral, 6 - 15 days of gestation:**

NOAEL toxicity: 10 mg/kg body weight

NOAEL development: 10 mg/kg body weight

Target organs/systems in mother animal: liver

Other effects in mother animal: organ weight change

Developmental effects: post-implantation loss

Effects on offspring only observed with maternal toxicity.

**Rabbit, oral, 7 - 19 days of gestation:**

NOAEL toxicity: 10 mg/kg body weight/day

NOAEL development:  $\geq$  50 mg/kg body weight/day

Target organs/systems in mother animal: none

Other effects in mother animal: weight loss, decrease of body weight gain, decrease of food consumption

Developmental effects: none

Other effects in foetus: none

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## 12. ECOLOGICAL INFORMATION

This section is intended for use by ecotoxicologists and other environmental specialists.

Data obtained on similar products and on components are summarized below.

**Similar formulation**

**Aquatic toxicity, algae/aquatic plants**

**Green algae (*Selenastrum capricornutum*):**

Acute toxicity, 72 hours, static, EbC50 (biomass): 5.01 µg/L

Very highly toxic.

**Acetochlor**

**Aquatic toxicity, fish**

**Bluegill sunfish (*Lepomis macrochirus*):**

Acute toxicity, 96 hours, static, LC50: 1.3 mg/L

Moderately toxic.

**Rainbow trout (*Oncorhynchus mykiss*):**

Acute toxicity, 96 hours, static, LC50: 0.36 - 1.2 mg/L

Highly toxic.

**Aquatic toxicity, invertebrates**

**Water flea (*Daphnia magna*):**

Acute toxicity, 48 hours, static, EC50: 8.6 - 16 mg/L  
Moderately toxic.

**Aquatic toxicity, algae/aquatic plants**

**Green algae (*Selenastrum capricornutum*):**

Acute toxicity, 96 hours, static, EC50: 0.27 - 1.49 µg/L  
Very highly toxic.

**Avian toxicity**

**Bobwhite quail (*Colinus virginianus*):**

Acute oral toxicity, single dose, LD50: 928 - 1,560 mg/kg body weight

**Mallard duck (*Anas platyrhynchos*):**

Acute oral toxicity, single dose, LD50: > 2,000 mg/kg body weight  
Practically non-toxic.

**Mallard duck (*Anas platyrhynchos*):**

Dietary toxicity, 5 days, LC50: > 5,620 mg/kg diet  
Practically non-toxic.

**Bobwhite quail (*Colinus virginianus*):**

Dietary toxicity, 5 days, LC50: > 5,620 mg/kg diet  
Practically non-toxic.

**Arthropod toxicity**

**Honey bee (*Apis mellifera*):**

Oral, 48 hours, LD50: > 100 µg/bee  
Practically non-toxic.

**Honey bee (*Apis mellifera*):**

Contact, 48 hours, LD50: > 200 µg/bee  
Practically non-toxic.

**Soil organism toxicity, invertebrates**

**Earthworm (*Eisenia foetida*):**

Acute toxicity, 14 days, LC50: 211 - 397 mg/kg dry soil  
Slightly toxic.

**Bioaccumulation**

**Bluegill sunfish (*Lepomis macrochirus*):**

Whole fish: BCF: 20  
Rapid depuration after end of exposure.

**Dissipation**

**Water, aerobic, 20 °C:**

Half life: 25.9 - 55.1 days

**Soil, aerobic, 20 °C:**

Half life: 3.4 - 29 days  
Koc: 74 - 422

**Atrazine**

**Aquatic toxicity, fish**

**Bluegill sunfish (*Lepomis macrochirus*):**

Acute toxicity, 96 hours, LC50: 8 mg/L  
Moderately toxic.

**Rainbow trout (*Oncorhynchus mykiss*):**

Acute toxicity, 96 hours, LC50: 8.8 mg/L  
Moderately toxic.

**Aquatic toxicity, invertebrates**

**Water flea (*Daphnia magna*):**

Acute toxicity, 48 hours, EC50: 6.9 mg/L  
Moderately toxic.

**Aquatic toxicity, algae/aquatic plants**

**Green algae (*Selenastrum capricornutum*):**

Acute toxicity, 96 hours, static, EC50: 4 - 130 µg/L  
Very highly toxic.

**Duckweed (*Lemna gibba*):**

Acute toxicity, 5 days, EC50: 170 µg/L  
Highly toxic.

**Avian toxicity**

**Bobwhite quail (*Colinus virginianus*):**

Dietary toxicity, 5 days, LC50: > 5,000 mg/kg diet  
Practically non-toxic.

**Mallard duck (*Anas platyrhynchos*):**

Dietary toxicity, 5 days, LC50: > 5,000 mg/kg diet  
Practically non-toxic.

**Mallard duck (*Anas platyrhynchos*):**

Acute oral toxicity, single dose, LD50: > 2,000 mg/kg body weight  
Practically non-toxic.

**Arthropod toxicity**

**Honey bee (*Apis mellifera*):**

Contact, 48 hours, LD50: > 97 µg/bee

**Bioaccumulation**

**Bluegill sunfish (*Lepomis macrochirus*):**

Edible portion: BCF: 8  
Rapid depuration after end of exposure.

**Bluegill sunfish (*Lepomis macrochirus*):**

Whole fish: BCF: 15  
Rapid depuration after end of exposure.

**Furilazole (Safener)**

**Aquatic toxicity, fish**

**Rainbow trout (*Oncorhynchus mykiss*):**

Acute toxicity, 96 hours, static, LC50: 6.2 mg/L  
Moderately toxic.

**Bluegill sunfish (*Lepomis macrochirus*):**

Acute toxicity, 96 hours, static, LC50: 4.6 mg/L  
Moderately toxic.

**Aquatic toxicity, invertebrates**

**Water flea (*Daphnia magna*):**

Acute toxicity, 48 hours, static, EC50: 26 mg/L  
Slightly toxic.

**Aquatic toxicity, algae/aquatic plants**

**Green algae (*Selenastrum capricornutum*):**

Acute toxicity, 72 hours, static, EbC50 (biomass): 34.8 mg/L  
Slightly toxic.

**Avian toxicity**

**Bobwhite quail (*Colinus virginianus*):**

Acute oral toxicity, single dose, LD50: > 2,000 mg/kg body weight  
Practically non-toxic.

**Bobwhite quail (*Colinus virginianus*):**

Dietary toxicity, 5 days, LC50: > 5,620 mg/kg diet  
Practically non-toxic.

**Mallard duck (*Anas platyrhynchos*):**

Dietary toxicity, 5 days, LC50: > 5,620 mg/kg diet  
Practically non-toxic.

**Arthropod toxicity**

**Honey bee (*Apis mellifera*):**

Contact, 48 hours, LD50: > 100 µg/bee  
Practically non-toxic.

**Photochemical degradation**

**Water:**

Half life: 30 days

**Dissipation**

**Soil, aerobic, 20 °C:**

Half life: 52 - 78 days

Koc: 56 - 341 L/kg

**Water, aerobic, 20 °C:**

Half life: 6 days

**Biodegradation**

**Manometric respirometry test:**

Degradation: 1 % within 28 days

Not readily biodegradable.

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### **13. DISPOSAL CONSIDERATIONS**

**Product**

Keep out of drains, sewers, ditches and water ways.  
Recycle if appropriate facilities/equipment available.  
Burn in special, controlled high temperature incinerator.  
Follow all local/regional/national/international regulations.

**Container**

See the individual container label for disposal information.  
Emptied containers retain vapour and product residue.  
Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.  
Empty packaging completely.  
Triple or pressure rinse empty containers.  
Do NOT contaminate water when disposing of rinse waters.  
Ensure packaging cannot be reused.  
Do NOT re-use containers.  
Store for collection by approved waste disposal service.  
Recycle if appropriate facilities/equipment available.  
Follow all local/regional/national/international regulations.

Use handling recommendations in Section 7 and personal protection recommendations in Section 8.

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### **14. TRANSPORT INFORMATION**

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

Not regulated for domestic transportation.

**Special provisions**

This material meets the definition of a marine pollutant.

**IMDG Code**

Use description for ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

**IATA/ICAO**

Use description for ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

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### **15. REGULATORY INFORMATION**

**TSCA Inventory**

All components are on the US EPA's TSCA Inventory

### OSHA Hazardous Components

Acetochlor  
Atrazine  
Furilazole (Safener)  
Surfactant(s)

### SARA Title III Rules

Section 311/312 Hazard Categories  
Immediate, Delayed  
Section 302 Extremely Hazardous Substances  
Not applicable.  
Section 313 Toxic Chemical(s)  
Atrazine

### CERCLA Reportable quantity

Not applicable.

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## 16. OTHER INFORMATION

The information given here is not necessarily exhaustive but is representative of relevant, reliable data.

Follow all local/regional/national/international regulations.

Please consult supplier if further information is needed.

In this document the British spelling was applied.

|| Significant changes versus previous edition.

	Health	Flammability	Instability	Additional Markings
NFPA	2	1	1	

0 = Minimal hazard, 1 = Slight hazard, 2 = Moderate hazard, 3 = Severe hazard, 4 = Extreme hazard

Full denomination of most frequently used acronyms. BCF (Bioconcentration Factor), BOD (Biochemical Oxygen Demand), COD (Chemical Oxygen Demand), EC50 (50% effect concentration), ED50 (50% effect dose), I.M. (intramuscular), I.P. (intraperitoneal), I.V. (intravenous), Koc (Soil adsorption coefficient), LC50 (50% lethality concentration), LD50 (50% lethality dose), LDLo (Lower limit of lethal dosage), LEL (Lower Explosion Limit), LOAEC (Lowest Observed Adverse Effect Concentration), LOAEL (Lowest Observed Adverse Effect Level), LOEC (Lowest Observed Effect Concentration), LOEL (Lowest Observed Effect Level), MEL (Maximum Exposure limit), MTD (Maximum Tolerated Dose), NOAEC (No Observed Adverse Effect Concentration), NOAEL (No Observed Adverse Effect Level), NOEC (No Observed Effect Concentration), NOEL (No Observed Effect Level), OEL (Occupational Exposure Limit), PEL (Permissible Exposure Limit), PII (Primary Irritation Index), Pow (Partition coefficient n-octanol/water), S.C. (subcutaneous), STEL (Short-Term Exposure Limit), TLV-C (Threshold Limit Value-Ceiling), TLV-TWA (Threshold Limit Value - Time Weighted Average), UEL (Upper Explosion Limit)

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