1. PRODUCT AND COMPANY IDENTIFICATION

Product name
HARNESS® Xtra Herbicide

EPA Reg. No.
524-480

Chemical name
Not applicable

Synonyms
None

Company
MONSANTO COMPANY, 800 N. Lindbergh Blvd., St. Louis, MO, 63167
Telephone: 800-332-3111, Fax: 314-694-5557

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: 314-694-4000 (collect calls accepted).

2. 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

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>CAS No.</th>
<th>% by weight (approximate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetochlor</td>
<td>34256-82-1</td>
<td>46.3</td>
</tr>
<tr>
<td>Atrazine</td>
<td>1912-24-9</td>
<td>18.3</td>
</tr>
<tr>
<td>Safener</td>
<td>141980-03-2</td>
<td>&lt;=4</td>
</tr>
<tr>
<td>Surfactant(s)</td>
<td></td>
<td>&lt;=5</td>
</tr>
<tr>
<td>Other ingredients</td>
<td></td>
<td>&lt;=27</td>
</tr>
</tbody>
</table>

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

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

3. HAZARDS IDENTIFICATION

Emergency overview
Appearance and odour (colour/form/odour): Pink / Suspension / Mild

CAUTION!
HARMFUL IF SWALLOWED
CAUSES EYE IRRITATION
Potential health effects

Likely routes of exposure
Skin contact, eye contact

Eye contact, short term
May cause 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
Not expected to produce significant adverse effects when recommended use instructions are followed.

Carcinogenicity
May cause cancer.

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

4. FIRST AID MEASURES

Eye contact
Immediately flush with plenty of water.
If easy to do, remove contact lenses.
If there are persistent symptoms, obtain medical advice.

Skin contact
Immediately wash affected skin with plenty of water.
Use soap if available.
Take off contaminated clothing, wristwatch, jewellery.
Wash clothes and clean shoes before re-use.

Inhalation
Remove to fresh air.

Ingestion
Immediately offer water to drink.
Never give anything by mouth to an unconscious person.
Do NOT induce vomiting unless directed by medical personnel.

5. FIRE-FIGHTING MEASURES

Flash point
> 200 °F  Method: closed cup

Extinguishing media
Recommended: Water, foam, dry chemical, carbon dioxide (CO2)

Unusual fire and explosion hazards
None.
Minimise use of water to prevent environmental contamination.
Environmental precautions: see section 6.

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

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.
Dig up heavily contaminated soil.
Collect in containers for disposal.
Place leaking containers in oversize leakproof drums for transport.
Flush residues with small quantities of water.
Minimise use of water to prevent environmental contamination.

Refer to section 13 for disposal of spilled material.

7. HANDLING AND STORAGE

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

Handling
Avoid contact with eyes, skin and clothing.
Avoid prolonged or repeated contact with skin.
When using do not eat, drink or smoke.
Wash hands thoroughly after handling or contact.
Wash contaminated clothing before re-use.
Thoroughly clean equipment after use.
Do not contaminate drains, sewers and water ways when disposing of equipment rinse water.
Refer to section 13 for disposal of rinse water.
Emptied containers retain vapour and product residue.
FOLLOW LABELED WARNINGS EVEN AFTER CONTAINER IS EMPTIED.

Storage
Compatible materials for storage: stainless steel
Keep out of reach of children.
Keep away from food, drink and animal feed.
Keep only in the original container.
Use appropriate container to avoid environmental contamination.
Minimum shelf life: 2 years.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Airborne exposure limits

<table>
<thead>
<tr>
<th>Components</th>
<th>Exposure Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetochlor</td>
<td>No specific occupational exposure limit has been established.</td>
</tr>
<tr>
<td>Atrazine</td>
<td>TLV (ACGIH): 5 mg/m³ (TWA)</td>
</tr>
<tr>
<td>Safener</td>
<td>NCEL (New Chemical Exposure Limit): 0.1 mg/m³ (TWA)</td>
</tr>
<tr>
<td>Surfactant(s)</td>
<td>No specific occupational exposure limit has been established.</td>
</tr>
</tbody>
</table>
Other 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.
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.

**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.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour/colour range:</td>
<td>Pink</td>
</tr>
<tr>
<td>Form:</td>
<td>Suspension</td>
</tr>
<tr>
<td>Odour:</td>
<td>Mild</td>
</tr>
<tr>
<td>Flash point:</td>
<td>&gt; 200 °F Method: closed cup</td>
</tr>
<tr>
<td>Specific gravity:</td>
<td>1.1 20 °C / 15.6 °C</td>
</tr>
<tr>
<td>pH:</td>
<td>5.8</td>
</tr>
<tr>
<td>Partition coefficient (log Pow):</td>
<td>4.14 20 °C (acetochlor)</td>
</tr>
<tr>
<td>Partition coefficient (log Pow):</td>
<td>2.5 25 °C (atrazine)</td>
</tr>
</tbody>
</table>

### 10. STABILITY AND REACTIVITY

**Stability**
Stable under normal conditions of handling and storage.

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

**Hazardous polymerization**
Does not occur.

### 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$_{50}$: 1,249 mg/kg body weight
- Other effects: breathing difficulty, decreased activity, weight loss, prostration, decrease of food consumption
- FIFRA category III.
- Slightly toxic.

**Acute dermal toxicity**
- Rat, LD$_{50}$: > 5,000 mg/kg body weight
- FIFRA category IV.
- Practically non-toxic.

**Skin irritation**
- Rabbit, 6 animals, OECD 404 test:
  - Days to heal: 2
  - Primary Irritation Index (PII): 0.4/8.0
  - FIFRA category IV.
  - Essentially non irritating.

**Eye irritation**
- Rabbit, 6 animals, OECD 405 test:
  - Days to heal: 7
  - FIFRA category III.
  - Slight irritation.

**Acute inhalation toxicity**
- Rat, LC$_{50}$, 4 hours, aerosol:
  - Practically non-toxic.
  - FIFRA category IV.
  - No 4-hr LC$_{50}$ at the maximum achievable concentration. No mortality.

**Skin sensitization**
- Guinea pig, Buehler test:
  - Positive incidence: 10%
  - Negative.

**Acetochlor**

**Mutagenicity**
- In vitro and in vivo mutagenicity test(s):
  - Not mutagenic on the basis of weight-of-evidence analysis.

**Repeated dose toxicity**
- Rat, oral, 91 days:
  - NOEL toxicity: 53.2 mg/kg body weight/day
  - Other effects: weight loss

- Rabbit, dermal, 21 days:
  - NOEL toxicity: 400 mg/kg body weight/day

**Carcinogenicity**
- Rat, oral, 24 months:
  - NOEL tumour: 200 mg/kg diet
  - Tumours: nose (adenoma)
  - Tumours only at or above MTD. Tumours not relevant for man based on mechanistic data.

- Mouse, oral, 23 months:
  - NOEL tumour: < 500 mg/kg diet
  - Tumours: liver (carcinoma), lung (adenoma) (carcinoma), uterus (sarcoma)
  - Tumours only at or above MTD. Tumours not relevant for man based on mechanistic data.
Toxicity to reproduction/fertility

Rat, oral, 2 generations:
- NOEL toxicity: 500 mg/kg diet
- NOEL reproduction: 500 mg/kg diet
- Target organs/systems in parents: kidneys, spleen
- Other effects in parents: weight loss
- Other effects in pups: weight loss, decrease of litter survival
  Effects on offspring only observed with maternal toxicity.

Developmental toxicity/teratogenicity

Rat, oral, 6 - 18 days of gestation:
- NOEL toxicity: 200 mg/kg body weight
- NOAEL development: > 400 mg/kg body weight/day
  Other effects in mother animal: decrease of body weight gain

Rabbit, oral, 7 - 19 days of gestation:
- NOEL toxicity: 50 mg/kg body weight/day
- NOEL development: > 190 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.

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

Carcinogenicity

Rat, oral, 24 months:
- NOEL tumour: 0.45 mg/kg body weight/day
- NOAEL toxicity: 3.5 mg/kg body weight/day
  Tumours: mammary gland (adenocarcinoma)
  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
  Tumours only at or above MTD. Tumours not relevant for man based on mechanistic data.

Mouse, oral, 91 weeks:
- NOEL tumour: ~ 400 mg/kg body weight/day
- 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
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.

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:
- NOEL 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: 1,000 mg/kg body weight/day
- Target organs/systems: none
- Other effects: blood biochemistry effects

Carcinogenicity

Rat, oral, 2 years:
- NOEL tumour: 100 mg/kg diet
- NOAEL toxicity: 100 mg/kg diet
- Tumours: liver (adenoma) (carcinoma)
- Target organs/systems: kidneys, liver, forestomach
- Other effects: weight loss, decrease of body weight gain, organ weight change, haematological effects, histopathologic effects
- Tumours not relevant to man.

Mouse, oral, 18 months:
- NOEL tumour: 40 mg/kg diet
- NOAEL toxicity: 40 mg/kg diet
- Tumours: liver (adenoma) (carcinoma), lung (adenoma) (carcinoma)
- Target organs/systems: liver, lung
- Other effects: weight loss, organ weight change, increased mortality
- Tumours not relevant to man.

Toxicity to reproduction/fertility
Rat, oral, 2 generations:
  NOAEL toxicity: 150 mg/kg diet
  NOAEL reproduction: 1,500 mg/kg diet
  Target organs/systems in parents: kidneys, liver
  Other effects in parents: decrease of body weight gain

**Developmental toxicity/teratogenicity**

**Rat, oral, 6 - 15 days of gestation:**
  NOAEL toxicity: 10 mg/kg body weight
  NOAEL development: 75 mg/kg body weight
  Target organs/systems in mother animal: liver
  Other effects in mother animal: weight loss, decrease of body weight gain, organ weight change
  Developmental effects: weight loss, skeletal variations
  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: 50 mg/kg body weight/day
  Target organs/systems in mother animal: liver
  Other effects in mother animal: weight loss, organ weight change
  Developmental effects: none

### 12. ECOLOGICAL INFORMATION

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

Data obtained on active ingredient(s) are summarized below.

**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 - 0.45 mg/L
    - Highly toxic.

**Aquatic toxicity, invertebrates**
  **Water flea (Daphnia magna):**
    - Acute toxicity, 48 hours, static, EC50: 8.6 - 16 mg/L
    - No more than slightly toxic.

**Aquatic toxicity, algae/aquatic plants**
  **Green algae (Selenastrum capricornutum):**
    - Acute toxicity, 120 hours, static, ErC50 (growth rate): 1.9 - 3.1 µg/L
    - Very highly toxic.
  **Blue-green algae (Anabaena flos-aquae):**
    - Acute toxicity, 120 hours, static, ErC50 (growth rate): 110 mg/L
    - Practically non-toxic.

**Avian toxicity**
  **Bobwhite quail (Colinus virginianus):**
    - Acute oral toxicity, single dose, LD50: > 31 - 1,260 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 fetida):**
- Acute toxicity, 14 days, LC50: 211 - 397 mg/kg dry soil
  Slightly toxic.

**Bioaccumulation**

**Bluegill sunfish (Lepomis macrochirus):**
- Whole fish: BCF: 84
  Rapid depuration after end of exposure.

**Dissipation**

**Soil, aerobic, 20 °C:**
- Half life: 3.4 - 29 days
- Koc: 74 - 422 L/kg

**Water, aerobic, 20 °C:**
- Half life: 12 days

**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
  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.

**Arthropod toxicity**

**Honey bee (Apis mellifera):**
- Contact, 48 hours, LD50: > 97 µg/bee

**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, ErC50 (growth rate): 85.2 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, 25 °C:
  Half life: 42 - 45 days
- Soil, anaerobic, 25 °C:
  Half life: 1.0 - 2.7 days

Biodegradation
- Manometric respirometry test:
  Degradation: 1 % within 28 days
  Not readily biodegradable.

13. DISPOSAL CONSIDERATIONS

Product
- Excess product may be disposed of by agricultural use according to label instructions.
- 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 labelled 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.
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.

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 hazardous under the applicable DOT, ICAO/IATA, IMO, TDG and Mexican regulations.

15. REGULATORY INFORMATION

OSHA Hazardous Components
- Acetochlor
- Atrazine
- 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.

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.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health</th>
<th>Flammability</th>
<th>Instability</th>
<th>Additional Markings</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Endnotes:
[a] EU label (manufacturer self-classification)
[b] EU label (Annex I)
[c] National classification

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), LEL (Lower limit of lethal dosage), LOAEC (Lower Observed Adverse Effect Concentration), LOAEL (Lower Observed Adverse Effect Level), LOEL (Lower Observed Effect Concentration), 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)
This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABELING (attached to and accompanying the product container). This MSDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.

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