1. PRODUCT IDENTIFICATION

Product Name: CURACRON 8E
Product No.: A8591A

EPA Signal Word: Warning

Active Ingredient(%): Profenofos (73.0%)  CAS No.: 41198-08-7

Chemical Name: O-(4-bromo-2-chlorophenyl)-O-ethyl-s-propyl phosphorothioate
Chemical Class: Organophosphate Insecticide

EPA Registration Number(s): 100-669

Section(s) Revised: 3, 4, 8, 11, 13

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Material</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Other</th>
<th>NTP/IARC/OSHA Carcinogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Benzene (&lt;= 1.5%)</td>
<td>100 ppm TWA</td>
<td>100 ppm TWA</td>
<td>100 ppm TWA **</td>
<td>IARC Group 2B</td>
</tr>
<tr>
<td>Xylene (&lt;= 5%)</td>
<td>100 ppm TWA</td>
<td>100 ppm TWA; 150 ppm STEL</td>
<td>100 ppm TWA **</td>
<td>IARC Group 3</td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene (&lt;= 7%)</td>
<td>Not Established</td>
<td>25 ppm TWA</td>
<td>25 ppm TWA **</td>
<td>No</td>
</tr>
<tr>
<td>Profenofos (73.0%)</td>
<td>Not Established</td>
<td>Not Established</td>
<td>3 mg/m³ TWA ***</td>
<td>No</td>
</tr>
</tbody>
</table>

** recommended by NIOSH
*** Syngenta Occupational Exposure Limit (OEL)

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.
Syngenta Hazard Category: C, S

3. HAZARDS IDENTIFICATION

Symptoms of Acute Exposure
This product is a cholinesterase inhibitor. Principal routes of exposure are skin contact and inhalation. Symptoms of cholinesterase inhibition may include salivation, sweating, headache, nausea, muscle twitching, tremors, poor coordination, blurred vision, tears, abdominal cramps, diarrhea and chest discomfort.
Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact. Vapors may cause drowsiness and dizziness.

Hazardous Decomposition Products
Can decompose at high temperatures forming toxic gases.

Physical Properties
Appearance: Amber liquid
Odor: Pungent, garlic-like odor

Unusual Fire, Explosion and Reactivity Hazards
Combustible liquid. Can release vapors that form explosive mixtures at temperatures at or above the flash point. Heavy vapors can flow along surfaces to distant ignition sources and flash back.
During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

4. FIRST AID MEASURES
Have the product container, label or Material Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison control center or doctor, or going for treatment.

Ingestion: If swallowed: Call Syngenta (800-888-8372), a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so after calling 800-888-8372 or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Eye Contact: If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

Skin Contact: If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

Inhalation: If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call Syngenta (800-888-8372), a poison control center or doctor for further treatment advice.

Notes to Physician

Persons suffering a temporary allergic reaction may respond to treatment with antihistamines or steroid creams and/or systemic steroids.

Contains petroleum distillate - vomiting may cause aspiration pneumonia.

Contains an organophosphate that inhibits cholinesterase. Consider taking venous blood for determination of blood cholinesterase activity (use heparin tube). Administer atropine sulfate, either by intramuscular or intravenous injection, dependent on severity of poisoning. Specific antidotes are oximes such as Pralidoxime (2-PAM). Avoid the use of opiates and phenothiazine. Carefully monitor patient because continued absorption of the poison may occur resulting in fatal relapse after initial improvement.

Medical Condition Likely to be Aggravated by Exposure

None known.

5. FIRE FIGHTING MEASURES

Fire and Explosion

Flash Point (Test Method): 133°F (Setaflash CC)
Flammable Limits (% in Air): Lower: 0.9%  Upper: 5.2%
Autoignition Temperature: 670°F
Flammability: Combustible liquid

Unusual Fire, Explosion and Reactivity Hazards

Combustible liquid. Can release vapors that form explosive mixtures at temperatures at or above the flash point. Heavy vapors can flow along surfaces to distant ignition sources and flash back. During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

In Case of Fire

Use appropriate extinguishing media for combustibles in the area. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

7. HANDLING AND STORAGE

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages
or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT.**

**FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.**

**Ingestion:** Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

**Eye Contact:** Where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

**Skin Contact:** Where contact is likely, wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear.

**Inhalation:** A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits.

In case of emergency spills, use a NIOSH approved respirator with any R, P or HE filter.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance:** Amber liquid
- **Odor:** Pungent, garlic-like odor
- **Melting Point:** Not Applicable
- **Boiling Point:** Not Available
- **Specific Gravity/Density:** 1.32g/cm³ @ 68°F (20°C)
- **pH:** 2 - 4(10% solution in H₂O)

#### Solubility in H₂O

- **Profenofos:** 28mg/l @ 77°F (25°C)

#### Vapor Pressure

- **Profenofos:** 9.7 x 10(-6) mmHg @ 68°F

### 10. STABILITY AND REACTIVITY

- **Stability:** Stable under normal use and storage conditions.
- **Hazardous Polymerization:** Will not occur.
- **Conditions to Avoid:** Flame, heat, ignition sources.
- **Materials to Avoid:** Strong oxidizers.
- **Hazardous Decomposition Products:** Can decompose at high temperatures forming toxic gases.

### 11. TOXICOLOGICAL INFORMATION

**Acute Toxicity/Irritation Studies (Finished Product)**

- **Ingestion:** Slightly Toxic
  - Oral (LD₅₀ Rat) : 714 mg/kg body weight
- **Dermal:** Slightly Toxic
  - Dermal (LD₅₀ Rabbit) : > 2,020 mg/kg body weight
- **Inhalation:** Practically Non-Toxic
  - Inhalation (LC₅₀ Rat) : > 2.7 mg/l air - 4 hours
- **Eye Contact:** Moderately Irritating (Rabbit)
- **Skin Contact:** Minimally Irritating (Rabbit)
- **Skin Sensitization:** Sensitizing (Guinea Pig)
12. ECOLOGICAL INFORMATION

Summary of Effects
Profenofos
Very toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment. Toxic to birds. Very toxic to honey bees.

Eco-Acute Toxicity
Profenofos
Bees LC50/EC50 0.1 ug/bee
Invertebrates (Water Flea) LC50/EC50 0.0014 ppm
Fish (Trout) LC50/EC50 0.025 ppm
Fish (Bluegill) LC50/EC50 0.3 ppm
Birds (8-day dietary - Bobwhite Quail) LC50/EC50 57 ppm
Birds (8-day dietary - Mallard Duck) LC50/EC50 1,647 ppm

Eco-Chronic Toxicity
Profenofos
Mallard Duck 8-days LC50 150 ppm
Bobwhite Quail 8-days LC50 70 ppm
Japanese Quail 8-days LC50 > 1,000 ppm

Environmental Fate
Profenofos:
The information presented here is for the active ingredient, profenofos.
Low bioaccumulation potential. Not persistent in soil or water. Low mobility in soil. Sinks in water (after 24 h).
13. DISPOSAL CONSIDERATIONS

Disposal
Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Ignitable D001
Listed Waste: Contains Xylene U239

14. TRANSPORT INFORMATION

DOT Classification
Surface Transportation:
Non-Bulk Containers (≤ 119 gal. cap.): Flammable Liquid, N.O.S. (xylene, trimethylbenzene), 3, UN1993, PGIII
Bulk Containers (> 119 gal. cap.): RQ Flammable Liquid, N.O.S. (xylene, trimethylbenzene), 3, UN1993, PGIII

Do not ship by air.

B/L Freight Classification
Insecticides, NOS, O/T Poison

Comments
International Transportation
Bulk: RQ, Flammable Liquids, N.O.S. (Contains trimethylbenzene/xylene) Class 3, UN1993, PGIII F.P. 133F
Drums: Flammable Liquids, N.O.S. (Contains trimethylbenzene/xylene) Class 3, UN1993, PGIII F.P.133F

15. REGULATORY INFORMATION

EPCRA SARA Title III Classification
Section 311/312 Hazard Classes: Acute Health Hazard
Chronic Health Hazard
Fire Hazard

Section 313 Toxic Chemicals:
Profenofos (73.0%) (CAS No. 41198-08-7)
Ethyl Benzene (≤ 1.5%) (CAS No. 100-41-4)
Xylene (≤ 5%) (CAS No. 1330-20-7)
1,2,4-Trimethylbenzene (≤ 7%) (CAS No. 95-63-6)

California Proposition 65
Not Applicable

CERCLA/SARA 302 Reportable Quantity (RQ)
Report product spills > 230 gal. (based on p-xylene [RQ = 100 lbs.] content in the formulation)

RCRA Hazardous Waste Classification (40 CFR 261)
Ignitable D001

TSCA Status
Exempt from TSCA, subject to FIFRA

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA Hazard Ratings</th>
<th>HMIS Hazard Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health:</td>
<td>2</td>
</tr>
<tr>
<td>Flammability:</td>
<td>2</td>
</tr>
<tr>
<td>Instability:</td>
<td>0</td>
</tr>
<tr>
<td>Health:</td>
<td>2</td>
</tr>
<tr>
<td>Flammability:</td>
<td>2</td>
</tr>
<tr>
<td>Reactivity:</td>
<td>0</td>
</tr>
</tbody>
</table>

For non-emergency questions about this product call:
1-800-334-9481
The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.

RSVP#: Not Applicable

End of MSDS