

# SAFETY DATA SHEET

## Surrender

### 1. IDENTIFICATION

Product name: **Surrender**  
Product type: Insecticide  
EPA Registration No.: 53883-133  
Chemical name of active ingredient(s): **Acephate**: O, S-Dimethyl acetylphosphoramidothioate  
Manufacturer/Registrant: Control Solutions, Inc.  
5903 Genoa-Red Bluff  
Pasadena, TX 77507

For fire, spill, and/or leak emergencies,  
contact Chemtrec: Phone: 1-800-424-9300  
For medical emergencies and health  
and safety inquiries, contact Safety  
Call: Phone: 1-866-897-8050  
Poison Control Center Phone: 1-800-222-1222

### 2. HAZARDS IDENTIFICATIONS

#### According to OSHA Hazard Communication Standard (29 CFR 1910.1200)

##### Acute Toxicity:

Exposure Route	Acute oral	Acute dermal	Acute inhalation	Eye irritation	Skin irritation	Skin Sensitization
Category	4	NC	NC	2B	NC	NC

NC: Not classified

**SIGNAL WORD:** WARNING

##### HAZARD STATEMENTS:

- Harmful if swallowed
- Cause eye irritation

##### PICTOGRAM:



##### PRECAUTIONARY STATEMENTS:

- Wash hand thorough after handling. Do not eat, drink or smoke when using this product. If swallowed: call a poison center or doctor if you fell unwell. Rinse mouth.
- Wash hands thoroughly after handling. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: get medical advice.

Contact Safety Call® International for emergency medical treatment at (866) 897-8050.

**STORAGE AND DISPOSAL:** See Section 7 and 13.

**OTHER HAZARDS:** See Section 11 and 12.

# SAFETY DATA SHEET

## Surrender

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

COMMON NAME	CAS NO.	%	OSHA PEL	ACGIH TLV	OTHER	NTP/IARC/OSHA (Carcinogen)
Acephate	30560-19-1	75	NE	NE	NA	NA
Silicon Dioxide	112926-00-8	<25	6 mg/m <sup>3</sup> (total dust)	10 mg/m <sup>3</sup> (total dust) 3 mg/m <sup>3</sup> (nuisance particulate)	NA	Group 3*
Particulates Not Otherwise Classified	NA		15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable)	10 mg/m <sup>3</sup> (inhalable) 3 mg/m <sup>3</sup> (respirable)	NA	NA

NE= Not established; NA= Not applicable

\*IARC Group 3 - Not classifiable as to its carcinogenicity to humans (Silica-Amorphous, precipitated)

### 4. FIRST AID MEASURES

FIRST AID	
<b>IF SWALLOWED</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>IF IN EYES</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continuing rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF ON SKIN OR CLOTHING</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15- 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF INHALED</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<p>Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact SafetyCall® International (866) 897-8050 for emergency medical treatment information.</p>	
<p><b>NOTE TO PHYSICIAN:</b> Acephate is a cholinesterase inhibitor. If signs of cholinesterase appear, atropine is antidotal. 2-PAM may also be used in conjunction with atropine but should not be used alone.</p>	

### 5. FIRE FIGHTING MEASURES

**FLASH POINT:** Not flammable

**FLAMMABLE LIMITS:** Not determined

**EXTINGUISHING MEDIA:** Water fog, CO<sub>2</sub>, dry chemical and foam.

**UNUSUAL FIRE & EXPLOSION HAZARDS:** Pesticide fires have potential to emit hazardous decomposition products.

# SAFETY DATA SHEET

## Surrender

**FIRE-FIGHTING PROCEDURES:** Products of combustion from fires involving this material may be toxic. Avoid breathing smoke and mists. Avoid personnel and equipment contact with fallout and runoff. Minimize the amount of water used for fire fighting. Do not enter any enclosed area without full protective equipment, including self-contained breathing equipment. Contain and isolate runoff and debris for proper disposal. Decontaminate personal protective equipment and firefighting equipment before reuse.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Normal combustion forms carbon dioxide, water vapor and may produce oxides of sulfur, nitrogen and phosphorus. Incomplete combustion can produce carbon monoxide.

### 6. ACCIDENTAL RELEASE MEASURES

Reduce airborne dust. Avoid runoff into storm sewers or other bodies of water. Clean up spill immediately. Vacuum or sweep up material and place in a chemical waste container. Wash area with soap and water. Pick up wash liquid with additional absorbent and place in a chemical waste container. Observe all protection and safety precautions when cleaning up spills. This material will disperse or dissolve in water. Stop the source of the release. Contain and isolate to prevent further release into soil, surface water and ground water. Absorb spill with inert material. Remove contaminated water for treatment or disposal.

### 7. HANDLING AND STORAGE

Do not contaminate water, food, or feed by storage or disposal.

**PRECAUTIONS TO BE TAKEN IN HANDLING:** Avoid contact with skin and eyes. Take precautions to avoid damaging containers. Avoid cross contamination. Always wash hands thoroughly after handling pesticides and before eating, drinking, or smoking. Clean water should be available to rinse eyes and skin in case of chemical exposure.

**PRECAUTIONS TO BE TAKEN IN STORAGE:** Keep pesticide in original container. Do not put concentrated or dilute product into food or drink containers. Store in a cold place. Protect from excessive heat. Do not put contaminate food or feedstuffs. Do not store or transport near feed or food.

**STORAGE TEMPERATURE (MIN/MAX):** Normal ambient temperatures.

### 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.**

**EYE PROTECTION:** Protective eyewear or chemical safety glasses with side shields or chemical goggles when working in non-ventilated spaces.

**SKIN PROTECTION:** Long-sleeve shirt, long pants, shoes plus socks.

**HAND PROTECTION:** Chemical-resistant gloves.

**RESPIRATOR REQUIREMENTS:** Use this material only in well ventilated areas. Unless ventilation is adequate to keep airborne concentrations below recommended exposure standards, approved respiratory protection should be worn.

**WORK HYGIENIC PRACTICES:**

Clean water should be available to rinse eyes and skin in case of chemical exposure. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

**ADDITIONAL PROTECTIVE MEASURES:**

# SAFETY DATA SHEET

## Surrender

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

### USER SAFETY RECOMMENDATIONS:

#### Users Should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**EXPOSURE GUIDELINES:** Refer to Section 3.

**ENGINEERING CONTROLS:** Use only in adequately ventilated areas.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE:** White powder

**ODOR:** Rotten cabbage odor

**pH:** 4.2

**FLASH POINT:** Not applicable

**BULK DENSITY:** 25 - 30 lbs/cu.ft.

**VISCOSITY:** Not applicable

**SOLUBILITY IN WATER:** Not available

**MELTING POINT (Acephate Technical):** 195°F (90°C)

**SOLUBILITY:** Not available

### 10. STABILITY AND REACTIVITY

**STABILITY:** Stable under normal conditions.

**CONDITIONS AND MATERIALS TO AVOID:** Avoid contact with alkaline materials and elevated temperatures.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Normal combustion forms carbon dioxide, water vapor and may produce oxides of sulfur, nitrogen and phosphorus. Incomplete combustion can produce carbon monoxide.

**HAZARDOUS POLYMERIZATION:** Will not occur.

### 11. TOXICOLOGICAL INFORMATION

**ACUTE TOXICITY/IRRITATION STUDIES:** (Based on acephate technical)

Acute Oral LD<sub>50</sub> (Rat): 1447 mg/kg (M) and 1030 mg/kg (F)

Acute Dermal LD<sub>50</sub> (Rabbit): > 10 g/kg

Acute Inhalation LC<sub>50</sub> (Rat): > 12.1 mg/L (1-hour)

Eye Irritation (Rabbit): Mildly irritating

Skin Irritation (Rabbit): Slightly irritating.

Dermal Sensitization: Not a skin sensitizer

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Pre-existing cholinesterase depression.

#### OTHER TOXICOLOGICAL INFORMATION:

**REPRODUCTIVE OR TERATOGENIC EFFECTS:** No human data were found on the teratogenic or reproductive effects.

**CARCINOGENICITY:** The U.S. EPA designated acephate as Group C, possible human carcinogen based on increases in liver adenomas and carcinomas in female mice study with acephate. No human data were found on carcinogenic effects of acephate.

**MUTAGENIC DATA:** Weak evidence of mutagenic effects during in vivo and in vitro assays.

**TARGET ORGAN:** Nervous system.

# SAFETY DATA SHEET

## Surrender

**ADDITIONAL DATA:** Acephate can cause cholinesterase inhibition in humans; that is, it can overstimulate the nervous system causing nausea, dizziness, confusion, and at very high exposures (e.g., accidents or major spills), respiratory paralysis and death. (2001 EPA Fact Sheet)

Repeat or prolonged low level exposures to organophosphates may cause sensitization to subsequent exposures that mimic acute exposure.

### 12. ECOLOGICAL INFORMATION

**ENVIRONMENTAL HAZARDS:** This pesticide is toxic to birds. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Cover or incorporate spills.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

**ECOTOXICOLOGICAL INFORMATION:** (Data based on Acephate technical)

Rainbow trout LC<sub>50</sub> (96h): > 1000 mg/L

Bluegill LC<sub>50</sub> (96h): > 2000 mg/L

Mallard duck acute oral LD<sub>50</sub>: 350 mg/kg

Northern bobwhite quail (5-day) LC<sub>50</sub>: 1280 ppm

Highly toxic to bees. The acute oral LD<sub>50</sub> for bees is 1.2 µg/bee.

### 13. DISPOSAL CONSIDERATIONS

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Do not contaminate water, food, or feed by storage or disposal. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. Dispose of excess or waste pesticide by use according to label directions, or contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Dispose of product containers, waste containers, and residues according to label instructions and local, state, and federal health and environmental regulations.

### 14. TRANSPORT INFORMATION

**DOT CLASSIFICATION:**

Not regulated

**INTERNATIONAL TRANSPORTATION:**

Not regulated

### 15. REGULATORY INFORMATION

**FIFRA INFORMATION:**

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 for safety data sheet, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

**CAUTION** Harmful if swallowed. Causes eye irritation. Avoid contact with eyes, skin and clothing. Avoid breathing dust or spray mist. Wash hands thoroughly after handling. Do not allow children or pests to come into contact with treated areas until sprays have dried.

**SARA TITLE III CLASSIFICATION:**

# SAFETY DATA SHEET

## Surrender

Section 302: Not applicable.  
Section 311/312: Acute health hazard (immediate)  
Chronic health hazard  
Section 313: Acephate (CAS #: 30560-19-1)

**CERCLA RQ:** Not applicable

**RCRA CLASSIFICATION:** Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

**TSCA STATUS:** The ingredients of this product are listed on the TSCA inventory or are exempt.

**STATE REGULATIONS:** Silicon Dioxide (CAS# 112926-00-8) can be found on the following state right to know lists: Pennsylvania, Minnesota, Massachusetts.

New Jersey RTK – Acephate (CAS# 30560-19-1) carcinogen

**CA PROPOSITION 65:** Not applicable

### 16. OTHER INFORMATION

HAZARD RATINGS	NFPA	HMIS	
HEALTH:	1	1	0 MINIMAL
FLAMMABILITY:	1	1	1 SLIGHT
REACTIVITY:	0	0	2 MODERATE
			3 HIGH
			4 SEVERE

**MSDS DATE:** 10-27-2014. Supersedes version dated 9-26-2011. Changes made to all sections.

The information and recommendations contained herein are based upon data believed to be correct. However, no warranty of any kind, expressed or implied, is made with respect to the information contained herein.