



MATERIAL SAFETY DATA SHEET

MSDS

DATE: 7/13/07

NEW [X]

REVISED []

AGRIUM ADVANCED TECHNOLOGIES
P.O. Box 1187
Sylacauga, AL 35150

EMERGENCY PHONE NUMBERS:

1-800-424-9300 (CHEMTREC, transportation and spills)
1-800-900-4044 (Poison Control Center, human health)
1-800-345-4735 (ASPCA, animal health)

SECTION - 1 - PRODUCT INFORMATION

PRODUCT NAME: **PRECISE GREENHOUSE AND
NURSERY SYSTEMIC INSECTICIDE**

PRODUCT NUMBER(s): NA

CHEMICAL NAME: O,S - Dimethyl Acetylphosphoramidothioate

CHEMICAL CLASS: Organophosphate

EPA REGISTRATION NUMBER: 73614 - 1

EPA ESTABLISHMENT NUMBER: 73614-AI-001

NFPA RATING: Health - 1 Flammability - 0 Reactivity - 0 Special - None

NFPA CODES: 0=Least 1=Slight 2=Moderate 3=High 4=Extreme

SECTION - 2 - INGREDIENT INFORMATION

INGREDIENT	CAS NUMBER	PEL	TLV	% BY WEIGHT
ACEPHATE	30560-19-1	NL	NL	4.0
INERT INGREDIENTS	NA	NA	10 mg/cubic meter	96.0

SECTION - 3 - HAZARDS IDENTIFICATION SUMMARY

EMERGENCY OVERVIEW: Amber colored granule with very faint rotten cabbage odor.

- Cholinesterase inhibitor, harmful if swallowed.
- Dust from ground up granules can cause moderate eye irritation.
- Avoid breathing dust from ground up granules.
- Avoid contact with eyes, skin or clothing.
- Keep out of reach of children.

POTENTIAL HEALTH HAZARDS:

EYE - Contact may cause eye irritation. Degree of injury will depend on the amount of material that gets into the eye and the speed and thoroughness of the first aid treatment.

SKIN - Prolonged or repeated skin contact may cause irritation. The degree of injury will depend on the amount and duration of the contact and the speed and thoroughness of the first aid treatment. The expected adverse effects resulting from an exposure may induce redness and possibly some minor swelling.

INHALATION - Inhalation of dust from ground up granules may cause sore throat, coughing or shortness of breath. The degree of injury will depend on the amount of material inhaled and the speed and thoroughness of the first aid treatment.

INGESTION - This material may be harmful if swallowed. Degree of injury will depend on the amount ingested. Signs and symptoms which may occur within 12 hours following overexposure include headache, dizziness, weakness, pinpoint pupils, blurred vision, excessive salivation and nasal discharge, abdominal cramps, nausea and vomiting. Systemic ammonia poisoning is possible if sufficient absorption occurs.

SECTION - 4 - FIRST AID MEASURES

IF INHALED: Remove person from exposure area to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention.

IF ON SKIN: Remove contaminated clothing and wash skin with plenty of soap and water.

IF

SWALLOWED: Drink 1 or 2 glasses of water or milk, and induce vomiting by touching the back of the throat with a finger. If possible, contact a physician, Poison Control, or an emergency center before inducing vomiting. Do not induce vomiting or give anything by mouth to an unconscious person. Take person and product container to nearest emergency treatment center.

IF IN EYES: Wash eyes with fresh water for 15 minutes. If irritation continues, see a doctor.

SECTION - 5 - FIRE FIGHTING MEASURES

FLASHPOINT: Not applicable.

FLAMMABLE LIMITS: Not applicable.

FIRE AND EXPLOSION HAZARD: Material will not burn or explode under normal conditions.

EXTINGUISHING MEDIA: Use foam, carbon dioxide, or water spray when fighting fires involving this material.

FIREFIGHTING INSTRUCTIONS: Evacuate area and fight fire from a safe distance. Minimize the amount of water used for fire fighting. Water runoff can cause environmental damage. Dike and collect water used to fight fire. Decontaminate personal protective equipment and fire fighting equipment before reuse.

FIREFIGHTING EQUIPMENT: Wear self-contained breathing apparatus, pressure - demand, MSHA/NIOSH (approved or equivalent) with full face mask. Wear protective clothing to prevent contact with skin and eyes.

HAZARDOUS COMBUSTION PRODUCTS: Carbon dioxide, water vapor, oxides of sulfur, nitrogen and phosphorous, and ammonia gases.

SECTION - 6 - ACCIDENTAL RELEASE MEASURES

Clean up spills immediately, observing precautions as described in Section VIII. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Vacuum or sweep up material and place in a properly labeled disposal container. After removal, flush contaminated area thoroughly with water. Do not allow any material to run off into soil, drainage systems, or bodies of water.

Notify and consult with proper regulatory authorities.

SECTION - 7 - HANDLING AND STORAGE

END USER MUST READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL..

Keep pesticide in original container. Do not store or transport near food or feed. Store in cool, dry place, out of direct sunlight. Do not contaminate food or feed.

SECTION - 8 - EXPOSURE CONTROL/PERSONAL PROTECTION

END USER MUST READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.

EYE PROTECTION: Do not get this material in your eyes. Eye contact can be avoided by wearing protective eyewear.

RESPIRATION/VENTILATION: No special respiratory protection is normally required. However, if operating conditions create airborne concentrations that exceed the recommended exposure standards, the use of an approved respirator is required.

Use adequate ventilation to keep the airborne concentrations of this material below the recommended exposure standard.

SKIN PROTECTION: Avoid contact with skin or clothing. Skin contact should be minimized by wearing protective clothing, including gloves.

SECTION - 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Amber granules.
ODOR:	Very faint rotten cabbage odor.
MELTING POINT:	Decomposes above 235°C
BOILING POINT:	NA
BULK DENSITY:	62 lbs/cubic foot.
SOLUBILITY:	Slowly soluble in water.
VAPOR PRESSURE:	< 1.7 X 10 ⁻⁶ mm Hg @ 24°C
pH (when diluted in water):	6.3

SECTION - 10 - STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable.

CONDITIONS TO AVOID: High temperatures and excess moisture.

MATERIALS TO AVOID: Oxidizers, peroxides, potassium chlorate, metal chlorates, strong bases.

HAZARDOUS DECOMPOSITION PRODUCTS: Noxious gases when exposed to alkaline materials. Thermal decomposition may produce ammonia and oxides of sulfur, nitrogen, and phosphorous.

SECTION - 11 - TOXICOLOGY INFORMATION

ACUTE TOXICITY:

Oral LD (50), rat, female:	3,484 mg/Kg
Oral LD(50), rat, male:	> 5,000 mg/Kg
Dermal LD (50), rat, male and female:	> 5,000 mg/Kg
Inhalation LC(50), rat, male and female:	>2.09 mg/L
Eye Irritation, rabbit:	Minimal irritation, clearing within 48 hours.
Skin irritation, rabbit:	Non-irritating to skin
Sensitization, guinea pig:	Non-sensitizer

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

CARCINOGEN STATUS:

OSHA - Not listed.

NTP - Not listed.

IARC - Not listed.

MUTAGENIC DATA: Weak evidence of mutagenicity in tests performed *in vitro* and mice.

ADDITIONAL DATA: Repeated, or prolonged low level exposures to organophosphates may cause sensitization to subsequent exposures that mimic acute exposures.

SECTION - 12 - ECOLOGICAL INFORMATION

AVIAN TOXICITY: Acephate Technical is moderately toxic to birds.

Oral LD(50), Mallard Duck: 350 mg/Kg

Oral LD(50), Pheasant: 450 mg/Kg

Oral LD(50), Chicken: 852 mg/Kg

Do not apply to water, to areas where surface water is present. Cover or soil incorporate spills.

Acephate Technical is highly toxic to bees .

SECTION - 13 - DISPOSAL CONSIDERATIONS

END USERS MUST DISPOSE OF ANY UNUSED PRODUCT AS PER THE LABEL RECOMMENDATIONS.

DISPOSAL METHODS: Check government regulations and local authorities for approved disposal of this material. Dispose in accordance with applicable laws and regulations.

SECTION - 14 - DISPOSAL CONSIDERATIONS

D.O.T. SHIPPING NAME:

Insecticide, Dry, non-regulated

TECHNICAL SHIPPING NAME:

Acephate 4% Granule

D.O.T. HAZARD CLASS:

Not regulated

SECTION - 15 - REGULATORY INFORMATION

REGULATIONS UNDER FIFRA: All pesticides are governed under FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act). Therefore, the regulations presented below are pertinent only when the product is handled outside of the normal use and applications of pesticide. This includes waste streams resulting from manufacturing/formulation facilities, spills or misuse of products, and storage of large quantities of products containing hazardous or extremely hazardous substances.

OTHER U.S. FEDERAL REGULATIONS:

OSHA: NA
CERCLA RQ*: NONE
RCRA**: Not Regulated
SARA Title III:

302 Extremely hazardous Substance No
311/312 Hazard Categories Immediate
313 Toxic Chemicals Acephate

*RQ: Reportable Quantity

**RCRA waste codes must be determined on a case by case basis (i.e., spill, processing waste, etc.)

SECTION - 16 - OTHER INFORMATION

HMIS RATINGS:

Health 1
Flammability 0
Reactivity 0

HMIS RATING SYSTEM

0 - minimal hazard
1 - slight hazard
2 - moderate hazard
3 - serious hazard
4 - severe hazard

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