

**MATERIAL SAFETY DATA SHEET****1. PRODUCT IDENTIFICATION**Trade Name: **WESTERN STATES B-1**Chemical Name: **Aqueous Fertilizer Solution**Manufacturer's Name: **Liquinox Company**  
221 West Meats Avenue  
Orange, California 92667

Emergency Phone: (714) 970-2334

Business Phone: (714) 637-6300

Prepared by: Hap Garner

07-02-2007

**2. HAZARDOUS INGREDIENTS**

<u>CHEMICAL NAME</u>	<u>CAS #</u>	<u>PERCENT</u>
Thiamine Mononitrate	532-43-4	0.01%
Ferrous Sulphate Heptahydrate	007-720-787	0.125%
Manganese Sulfate	7785-87-7	0.125%
Zinc Sulfate Monohydrate	ZnSo4	36%
EDTA Chelating Agent Aqueous Solution of Tetrasodium Salts		

**3. PHYSICAL PROPERTIES**

Vapor Density: Heavier

Melting Point or Range: F

Specific Gravity: 1.220

Boiling Point or Range: F

Solubility in Water: Total

Vapor Pressure, mmHg at 20° C 5.65 mmHg

Evaporation Rate: (Butyl Acetate = 1); Slower than either

Appearance and Odor: Light to dark brown; minimum odor

\*How to detect this substance: Avoid breathing fumes; possible irritation.\***4. FIRE AND EXPLOSION**

Flash Point: N/A

Autoignition Temperature: N/A

Flammable Limits in Air, Volume %: LOWER

Fire extinguishing materials: Water spray, foam, carbon dioxide

-Special fire-fighting procedures: **None required.** Use large amounts of water and/or foam.

-Unusual fire and explosion hazards: None

## **5. HEALTH HAZARD INFORMATION**

### *Symptoms of Overexposure:*

- **INHALED:** Remove from area. Clear airway and start mouth-to-mouth contact. Use respirator or manual oxygen supply.
- **CONTACT WITH SKIN OR EYES:** Flush immediately with large amounts of water for at least 15 minutes. Call physician.
- **ABSORBED THROUGH SKIN:** Flush with large amounts of water. Call physician.
- **SWALLOWED:** Give large amounts of water. Do NOT induce vomiting or give mouth-to-mouth contact. Use respirator or manual oxygen supply.

### *Health Effects or Risks from Overexposure:*

- **ACUTE:** Skin irritation – flush with water and see physician regularly.
- **CHRONIC:** Prolonged or repeated skin contact may result in dermatitis or skin burn.

### *First Aid Emergency Procedures:*

- **EYE CONTACT:** Flush well with large amounts of water, call physician.
- **SKIN CONTACT:** Flush well with large amounts of water, call physician. Remove contaminated clothing and wash.
- **INHALED:** Remove person from area. Start mouth-to-mouth contact and use oxygen source if available.
- **SWALLOWED:** Give large amounts of water. Do NOT induce vomiting; call physician.

### *Medical Conditions Aggravated by Exposure:*

- Possible skin burn and dermatitis; respiratory track irritation.

### *Recommendations to Physician:*

- Flush areas with generous supply of clean water.

SUSPECTED CANCER AGENT: **NO**

## **6. REACTIVITY DATA**

**STABILITY:** .....Stable  
**CONDITIONS TO AVOID :** ..... Strong Alkaline  
**INCOMPATIBILITY:** .....Steel or other non-corrosion resistant metals  
**HAZARDOUS DECOMPOSITION PRODUCTS:** .....None  
**HAZARDOUS POLYMERIZATION:** .....Will Not Occur

## **7. SPILL, LEAK, AND DISPOSAL PROCEDURES**

Spill Response Procedures: Use adequate amounts of water for flushing. Spread baking soda or soda ash on spill. Confine spill to limited area. Call (800) 424-9300 for additional help.

Preparing Wastes for Disposal: Use soda ash or baking soda to neutralize spilled area.

**NOTE: DISPOSE OF ALL WASTES IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.**

## **8. SPECIAL HANDLING INFORMATION**

- Ventilation and Engineering Controls: General mechanical ventilation will be sufficient to keep vapor concentration within specified limits.
- Respiratory Protection: None needed in normal use.
- Eye Protection: Safety glasses, goggles, or face shield.
- Gloves: Use impermeable plastic or rubber gloves.
- Other clothing and equipment: Use plastic or rubber aprons. Do NOT use cloth aprons.
- Work Practices: Keep out of reach of children.
- Hygienic Practices: Flush with generous amounts of water.
- Other Handling and Storage Requirements: Read directions, close containers after using. Store away from activity areas. For best use, store in a cool area. Use ample amounts of water in spilled area.
- Protective Measures During Maintenance of Contaminated Equipment: Use goggles, face shield, or plastic aprons and gloves. Have water supply nearby.

## **9. LABELING**

Keep out of reach of children. This product contains phosphoric acid – harmful if swallowed. Avoid contact with eyes and skin. Wash well with clean water. Consult a physician immediately.

**NOTICE:** Buyer assumes all responsibility for safety and use of this product not in accordance with directions and cautions.



## Material Safety Data Sheet

### The Armor All/STP Products Company

44 Old Ridgebury Road  
Suite 300  
Danbury, CT 06810  
Tel. 1-203-205-2900

### 1. Product And Company Identification

**Product Name:** ARMOR ALL® Glass Wipes

**Responsible Party:** The Armor All/STP Products Company  
44 Old Ridgebury Road  
Suite 300  
Danbury, CT 06810

**Information Phone Number:** +1 203-205-2900

**Emergency Phone Number:**

For Medical Emergencies, call 1-866-949-6465 / +1 303-389-1332 (Outside US and Canada)  
For Transportation Emergencies, call 1-800-424-9300 (Chemtrec) +1-703-527-3887 for  
Outside US and Canada (call collect)

**MSDS Date Of Preparation:** 12/28/2012

**Product Use:** Automotive maintenance product – For consumer and professional use

### 2. Hazards Identification

#### EMERGENCY OVERVIEW

**CAUTION:** May cause eye irritation. Under normal conditions of use, no adverse effects are expected.

### 3. Composition/Information On Ingredients

Component	CAS No.	Amount
Propylene glycol n-butyl ether	5131-66-8	1-5%
Non-Hazardous Ingredients	Mixture	95 - 99%

### 4. First Aid Measures

**Inhalation:** If symptoms of exposure develop, remove to fresh air. Seek medical attention if symptoms persist.

**Skin Contact:** Rinse with water. If skin irritation or redness develops, seek medical attention.

**Eye Contact:** Flush eyes with plenty of water. If irritation or other symptoms persist, seek medical attention.

**Ingestion:** If the victim is fully conscious, have them drink a glass of water. Get medical assistance by calling a doctor or poison center. Never give anything by mouth to a person who is unconscious or drowsy.

### 5. Firefighting Measures

**Extinguishing Media:** Use water, dry chemical, foam, or carbon dioxide (CO<sub>2</sub>).

**Special Fire Fighting Procedures:** Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

**Unusual Fire Hazards:** Wipes will burn under fire conditions after water has evaporated.

**Hazardous Combustion Products:** Oxides of carbon.



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### 6: Accidental Release Measures

**Personal Precautions:** Ventilate the area.

**Environmental Precautions:** Prevent entry in storm sewers and waterways. Report spill as required by local and national regulations.

**Methods for Containment and Clean-Up:** Pick up and place in a suitable container for disposal. Rinse area with water.

### 7. Handling and Storage

Avoid contact with eyes. Avoid prolonged contact with skin and clothing. Wash hands after use. Not for personal cleansing. Keep out of the reach of children.

No special storage required.

### 8. Exposure Controls / Personal Protection

CHEMICAL	EXPOSURE LIMIT
Propylene glycol n-butyl ether	50 ppm TWA (manufacturer recommended)
Non-Hazardous Ingredients	None Established

**Ventilation:** General ventilation should be adequate for all normal use.

**Respiratory Protection:** None under normal use conditions.

**Gloves:** None normally required.

**Eye Protection:** None required for normal use. Avoid eye contact.

**Other Protective Equipment/Clothing:** None required under normal use conditions.

### 9. Physical and Chemical Properties

**Appearance And Odor:** Wipes moistened with clear liquid with a mild odor.

<b>pH:</b> 9 – 11 (Liquid component)	<b>Specific Gravity:</b> 1.0 @ 25°C (Liquid component)
<b>Boiling Point:</b> 212°F (100°C) (Liquid component)	<b>Vapor Pressure:</b> Not determined
<b>Freezing Point:</b> Not determined	<b>Vapor Density:</b> Not determined
<b>Solubility In Water:</b> Easily soluble (Liquid component)	<b>Percent Volatile:</b> Not determined
<b>Viscosity:</b> Not determined	<b>Evaporation Rate:</b> Not determined
<b>Coefficient Of Water/Oil Distribution:</b> Not determined	<b>Autoignition Temp:</b> Not determined
<b>Flash Point:</b> >220°F (>104.4°C) (Liquid component)	
<b>Flammability Limits:</b> LEL: Not determined	LEL: Not determined



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### 10. Stability and Reactivity

**Stability:** Stable

**Conditions To Avoid:** Keep away from excessive heat, and open flames.

**Incompatibility:** Strong oxidizing agents

**Hazardous Decomposition Products:** Thermal decomposition will generate carbon monoxide, and carbon dioxide.

### 11. Toxicological Information

#### **Acute Hazards:**

**Inhalation:** Inhalation of high vapor concentrations may cause upper respiratory tract irritation with coughing and sneezing.

**Skin Contact:** Prolonged or repeated contact may cause irritation and dryness in some individuals.

**Eye Contact:** Direct contact may cause mild eye irritation with redness and tearing.

**Ingestion:** Swallowing may cause gastrointestinal disturbances.

**Chronic Hazards:** None currently known.

**Medical Conditions Aggravated By Exposure:** None currently known.

**Carcinogen:** None of the components is listed as a carcinogen or potential carcinogen by IARC, NTP, ACGIH or OSHA.

#### **Acute Toxicity Values:**

Propylene glycol n-butyl ether: LD50 oral rat 5660 uL/kg; LD50 dermal rabbit 3,100 mg/kg

### 12. Ecological Information

Propylene glycol n-butyl ether: LC50 water flea (Daphnia magna): > 1,000 mg/L

This product is not expected to be harmful to the environment.

### 13. Disposal Considerations

Dispose of in accordance with all local, state/provincial and federal regulations. Offer empty containers for recycling.

### 14. Transport Information

**DOT Hazardous Materials Description:** Not Regulated

**Canadian TDG Hazardous Materials Description:** Not Regulated

**IMDG Dangerous Goods Description:** Not Regulated



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### 15. Regulatory Information

#### United States:

**EPA TSCA INVENTORY:** All of the components of this material are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

**CERCLA Section 103:** This product has no RQ. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

**SARA Hazard Category (311/312):** Non-Hazardous

**SARA 313:** This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

#### Canada:

**Canadian WHMIS Classification:** Not a controlled product.

**Canadian Environmental Protection Act:** All of the ingredients are listed on the Canadian DSL.

This MSDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the MSDS contains all of the information required by the CPR.

### 16. Other Information

NFPA Rating (NFPA 704):	Health: 1	Fire: 1	Instability: 0
HMIS Rating:	Health: 1	Fire: 1	Reactivity: 0

REVISION SUMMARY: Change to sections 3, 9.

DATA SUPPLIED IS FOR USE ONLY IN CONNECTION WITH OCCUPATIONAL SAFETY AND HEALTH

# Material Safety Data Sheet

**B-9 Chem-Dip Carburetor and Parts Cleaner**

**MSDS No. 014**

Date of Preparation: 10-29-99

Revision: 12-01-05

## Section 1 - Chemical Product and Company Identification

**Product/Chemical Name:** B-9 Chem-Dip Carburetor and Parts Cleaner

**Part Number(s):** 0901, 0905, 0996 (Blend 2AAD)

**CAS Number:** Not applicable to mixtures

**General Use:** Automotive product

**Manufacturer:** Berryman Products, Inc., 3800 E. Randol Mill Rd., Arlington, TX 76011-5434

Phone: 1-800-433-1704, Emergency phone number: 1-800-535-5053.

### ☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

## Section 2 - Composition / Information on Ingredients

Ingredient Name	CAS Number	% wt or % vol
Methylene Chloride (Dichloromethane)	75-09-2	55-65
Cresols	Mixture	10-15
Mixed Xylenes	1330-20-7	20-30
Sodium Bichromate	10588-01-9	<4
Ethyl Benzene	100-41-4	<6

### Trace Impurities:

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH IDLH
	TWA	STEL	TWA	STEL	TWA	STEL	
Methylene Chloride (Dichloromethane)	125	none estab.	50	none estab.	none estab.	none estab.	none estab.
Cresols	5	none estab.	5	none estab.	none estab.	none estab.	none estab.
Mixed Xylenes	100	none estab.	100	150	none estab.	none estab.	none estab.
Sodium Bichromate	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.
Ethyl Benzene	100	none estab.	100	125	none estab.	none estab.	none estab.

## Section 3 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance and Odor:** Clear, Light Brown, Antiseptic

**Vapor Pressure:** 350 mm Hg at 68 °F (Major component)

**Vapor Density (Air=1):** Heavier than air

**Density:** 9.43 lbs/gal

**Specific Gravity (H<sub>2</sub>O=1, at 4 °C):** 1.130

**Boiling Point:** 104-324 °F

**Refractive Index:** 1.4649

**% Volatile:** 85

**Evaporation Rate:** Slower than ether

## Section 4 - Fire-Fighting Measures

**Flash Point:** 210 °F

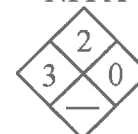
**Flash Point Method:** CC

**LEL:** 13% v/v (Major component)

**Flammability Classification:** Class IIIB

**Extinguishing Media:** Carbon dioxide, foam, dry chemicals.

NEPA



**Unusual Fire or Explosion Hazards:** Combustible liquid. Vapors can cause flash fire. Toxic. Poison. Corrosive.

**Fire-Fighting Instructions:** Do not release runoff from fire control methods to sewers or waterways.

**Fire-Fighting Equipment:** Wear self-contained breathing apparatus pressure demand, MSNA/OSHA (approved or equivalent) ad full protective gear. Use water spray to keep fire-exposed containers cool.



**Section 5 - Stability and Reactivity**

**Stability:** B-9 Chem-Dip Carburetor and Parts Cleaner is stable at room temperature in closed containers under normal storage and handling conditions.

**Polymerization:** Hazardous polymerization cannot occur.

**Chemical Incompatibilities & Conditions to Avoid:** Isolate from oxidizers, heat, sparks, electric equipment and open flame. May be corrosive to aluminum, magnesium, titanium and their alloys.

**Hazardous Decomposition Products:** Thermal oxidative decomposition of B-9 Chem-Dip Carburetor and Parts Cleaner can produce carbon monoxide, carbon dioxide, chlorine containing gases and hydrogen chloride.

**Section 6 - Health Hazard Information****Potential Health Effects**

**Primary Entry Routes:** Skin, dermal, inhalation and ingestion.

**Target Organs:** Eyes, skin, respiratory system, CNS, liver and kidneys.

**Acute Effects:** May cause irritation to the eyes, skin, nose, throat and respiratory system. Nausea, headache, light-headedness, dizziness, and dermatitis. Burns and severe corneal damage may occur if direct contact with skin and eyes. Harmful or fatal if swallowed.

**Carcinogenicity:** IARC, NTP, and OSHA list Hexavalent Chromium as a carcinogen.

**Chronic Effects:** May affect liver, kidneys or central nervous system. Can cause nervous system depression. Potential cancer hazard.

**Emergency and First Aid Procedures**

**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. Get medical attention immediately.

**Eye Contact:** Immediately flush eyes with plenty of water. Get medical attention, IMMEDIATELY.

**Skin Contact:** Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

**Ingestion:** GET MEDICAL ATTENTION IMMEDIATELY. Do not induce vomiting.

**After first aid, get appropriate in-plant, paramedic, or community medical support.**

**Section 7 - Spill, Leak, and Disposal Procedures**

**Spill /Leak Procedures:** Eliminate all sources of ignition. Stop spill at source. Wear appropriate personal protective equipment (Sec. 8). Contain the spill to facilitate cleanup with absorbent. Use non-sparking tools and equipment. Transfer to disposal containers.

**Containment:** For large spills, dike far ahead of liquid spill for later disposal. Do not release into sewers or waterways.

**Disposal:** Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state and local regulations.

**Regulatory Requirements:** Follow applicable OSHA regulations (29 CFR 1910.120).

**Section 8 - Exposure Controls / Personal Protection**

**Ventilation:** Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

**Respiratory Protection:** Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or nonroutine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA.

**Warning!** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

**Protective Clothing/Equipment:** Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

**Safety Stations:** Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

**Contaminated Equipment:** Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

**Comments:** Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

**Section 9 - Special Precautions and Comments**

**Handling Precautions:** Avoid prolonged breathing of vapor and contact with eyes, skin and clothing. Use in well ventilated area. Wash thoroughly after handling.

**Storage Requirements:** Keep away from heat, sparks and flame. Keep container closed when not in use. Keep away from food.

**California Proposition 65:** This product contains the following chemicals know to the state of California to cause cancer and/or reproductive toxicity: Hexavalent Chromium and Dichloromethane (Methylene Chloride).

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**DOT Transportation Data (49 CFR 172.101):**

**Part Number(s):** 0901, 0996

**Shipping Name:** Consumer

Commodity

**Hazard Class:** ORM-D

**ID No.:** N/A

**Packing Group:** N/A

**Part Number(s):** 0902, 0905

**Shipping Name:** Toxic Liquids

Organic, N.O.S., contains

(Chlorinated Hydrocarbons)

**Hazard Class:** 6.1

**ID No.:** UN 2810

**Packing Group:** III

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**SARA Title III Section 313 Supplier Notification:**

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the emergency Planning & Community Right-To-Know-Act of 1986 & of 40CFR 372: Methylene chloride, m-Cresol (CAS #108-39-4), Mixed Xylenes, p-Cresol (CAS # 106-44-5), Hexavalent chromium (CAS # 7440-47-3), and Ethyl benzene.

**Prepared By:** Alicia L. Reed

**Disclaimer:** All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency. Conditions of use are beyond our control, therefore users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling and disposal of the product. Users also assume all risks in regards to the publications of use of, or reliance upon information contained herein. This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process.

**Material Safety Data Sheet****BAYER ADVANCED 12 MONTH TREE & SHRUB  
PROTECT & FEED CONCENTRATE**

MSDS Number: 102000018075

MSDS Version 1.0

Revision Date: 05/03/2007

**SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION**

**Product Name** BAYER ADVANCED 12 MONTH TREE & SHRUB PROTECT & FEED  
CONCENTRATE  
**MSDS Number** 102000018075  
**EPA Registration No.** 72155-76

Bayer Environmental Science  
2 T.W. Alexander Drive  
Research Triangle PK, NC 27709  
USA

For MEDICAL, TRANSPORTATION or other EMERGENCY call: 1-800-334-7577 (24 hours/day)  
For Product Information call: 1-800-331-2867

**SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS**

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Imidacloprid	138261-41-3	1.47
Phosphoric acid	7664-38-2	2.37
Potassium chloride	7447-40-7	1.69
Glycerine	56-81-5	
Ammonia, anhydrous	7664-41-7	

**SECTION 3. HAZARDS IDENTIFICATION**

*NOTE: Please refer to Section 11 for detailed toxicological information.*

**Emergency Overview** Caution! Harmful if swallowed or absorbed through skin. Moderate eye irritation.  
Avoid contact with skin, eyes and clothing. Wash thoroughly with soap and water  
after handling.

**Physical State** liquid

**Appearance** white to off-white

**Immediate Effects**

**Eye** Moderate eye irritation. Avoid contact with eyes.

**Skin** Harmful if absorbed through skin. Avoid contact with skin and clothing.

**Chronic or Delayed  
Long-Term**

This product or its components may have target organ effects.



## Material Safety Data Sheet

### BAYER ADVANCED 12 MONTH TREE & SHRUB PROTECT & FEED CONCENTRATE

MSDS Number 102000018075  
MSDS Version 1.0

**Potential Environmental Effect** Toxic to aquatic invertebrates.

#### SECTION 4. FIRST AID MEASURES

<b>General</b>	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
<b>Eye</b>	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.
<b>Skin</b>	Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.
<b>Inhalation</b>	Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.
<b>Notes to Physician Treatment</b>	There is no specific antidote. Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.

#### SECTION 5. FIRE FIGHTING MEASURES

<b>Flash point</b>	> 93.4 °C / 200.1 °F
<b>Suitable Extinguishing Media</b>	Water spray, Carbon dioxide (CO2), Dry chemical, Foam
<b>Fire Fighting Instructions</b>	<p>Keep out of smoke. Fight fire from upwind position. Whenever possible, contain fire-fighting water by diking area with sand or earth. Do not allow run-off from fire fighting to enter drains or water courses.</p> <p>Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.</p>

#### SECTION 6. ACCIDENTAL RELEASE MEASURES



## Material Safety Data Sheet

### BAYER ADVANCED 12 MONTH TREE & SHRUB PROTECT & FEED CONCENTRATE

MSDS Number 102000018075  
MSDS Version 1.0

<b>Personal Precautions</b>	Isolate hazard area. Keep unauthorized people away. Avoid contact with spilled product or contaminated surfaces.
<b>Methods for Cleaning Up</b>	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.
<b>Additional Advice</b>	Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal.

## SECTION 7. HANDLING AND STORAGE

<b>Handling Procedures</b>	Handle and open container in a manner as to prevent spillage.
<b>Storing Procedures</b>	Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

## SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>General Protection</b>	There are no known hazards associated with this product when used according to the label directions. The following guidelines should be followed.
	Avoid inhalation of vapour or mist. Avoid contact with skin and eyes.
	Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.
	Do not allow children or pets to enter the treated area until it has dried.

### Exposure Limits

Phosphoric acid	7664-38-2	ACGIH	TWA	1 mg/m3
		ACGIH	STEL	3 mg/m3
		NIOSH	REL	1 mg/m3
		NIOSH	STEL	3 mg/m3
		OSHA Z1	PEL	1 mg/m3
		OSHA Z1A	TWA	1 mg/m3
		OSHA Z1A	STEL	3 mg/m3
		US CA OEL	TWA PEL	1 mg/m3
		US CA OEL	STEL	3 mg/m3
		ACGIH	TWA	10 mg/m3
Glycerine	56-81-5	Form of exposure	Mist.	
		OSHA Z1	PEL	5 mg/m3
		Form of exposure	Respirable fraction.	

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PROTECT & FEED CONCENTRATE**MSDS Number 102000018075  
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Ammonia, anhydrous	7664-41-7	OSHA Z1	PEL		15 mg/m3
		Form of exposure		Total dust.	
		OSHA Z1A	TWA		5 mg/m3
		Form of exposure		Respirable fraction.	
		OSHA Z1A	TWA		10 mg/m3
		Form of exposure		Total dust.	
		US CA OEL	TWA PEL		5 mg/m3
		Form of exposure		Respirable fraction.	
		US CA OEL	TWA PEL		10 mg/m3
		Form of exposure		Total dust.	
		ACGIH	TWA		25 ppm
		ACGIH	STEL		35 ppm
		NIOSH	REL	25 ppm	18 mg/m3
		NIOSH	STEL	35 ppm	27 mg/m3
		OSHA Z1	PEL	50 ppm	35 mg/m3
		OSHA Z1A	STEL	35 ppm	27 mg/m3
		US CA OEL	TWA PEL	25 ppm	18 mg/m3
		US CA OEL	STEL	35 ppm	27 mg/m3

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	white to off-white
<b>Physical State</b>	liquid
<b>pH</b>	6 - 7.5 (100 %) at 20 °C
<b>Density</b>	approx. 1.066 g/cm <sup>3</sup> at 20 °C

**SECTION 10. STABILITY AND REACTIVITY**

<b>Hazardous Reactions</b>	Stable under normal conditions.
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**SECTION 11. TOXICOLOGICAL INFORMATION**

Acute toxicity studies have been bridged from a similar formulation containing a higher percentage of the active ingredient, imidacloprid. The non-acute information pertains to the technical-grade active ingredient.

<b>Acute Oral Toxicity</b>	male rat: LD50: > 4,870 mg/kg
	female rat: LD50: 4,143 mg/kg
<b>Acute Dermal Toxicity</b>	rabbit: LD50: > 2,000 mg/kg



## Material Safety Data Sheet

### BAYER ADVANCED 12 MONTH TREE & SHRUB PROTECT & FEED CONCENTRATE

MSDS Number 102000018075  
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<b>Acute Inhalation Toxicity</b>	rat: LC50: > 5.3 mg/l Exposure time: 4 h Determined in the form of liquid aerosol.
	rat: LC50: > 20 mg/l Exposure time: 1 h Determined in the form of liquid aerosol. Extrapolated from the 4 hr LC50.
<b>Skin Irritation</b>	rabbit: No skin irritation.
<b>Eye Irritation</b>	rabbit: Minimally irritating.
<b>Sensitization</b>	guinea pig: Non-sensitizing.
<b>Chronic Toxicity</b>	Imidacloprid caused thyroid and/or liver effects in chronic dietary studies in rats and dogs.

#### Assessment Carcinogenicity

Imidacloprid was not carcinogenic in studies in rats and mice.

**ACGIH**  
None.  
**NTP**  
None.  
**IARC**  
None.  
**OSHA**  
None.

<b>Reproductive &amp; Developmental Toxicity</b>	REPRODUCTION: Imidacloprid was not a reproductive toxicant in a multi-generation study in rats.
	DEVELOPMENTAL TOXICITY: Imidacloprid is not considered a primary developmental toxicant in rats and rabbits. Developmental effects were observed at doses that caused maternal toxicity.
<b>Neurotoxicity</b>	Imidacloprid showed slight behavioral and activity changes only at the highest dose tested in neurotoxicity studies in rats. There were no correlating morphological changes observed in the neural tissues.
<b>Mutagenicity</b>	Imidacloprid was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

## SECTION 12. ECOLOGICAL INFORMATION



## Material Safety Data Sheet

### BAYER ADVANCED 12 MONTH TREE & SHRUB PROTECT & FEED CONCENTRATE

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#### Environmental Precautions

Do not allow to get into surface water, drains and ground water. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Apply this product as specified on the label.

## SECTION 13. DISPOSAL CONSIDERATIONS

#### General Disposal Guidance

Follow container label instructions for disposal of wastes generated during use in compliance with the product label. Never place unused product down any indoor or outdoor drain.

#### Container Disposal

Do not re-use empty containers. Triple rinse containers. Place empty container in trash. Follow advice on product label and/or leaflet.

## SECTION 14. TRANSPORT INFORMATION

#### DOT CLASSIFICATION:

Not regulated for Domestic Surface Shipment

#### FREIGHT CLASSIFICATION:

Insecticides or Fungicides, N.O.I.; other than poison

## SECTION 15. REGULATORY INFORMATION

EPA Registration No. 72155-76

#### US Federal Regulations

##### TSCA list

Phosphoric acid	7664-38-2
Potassium chloride	7447-40-7
Glycerine	56-81-5
Ammonia, anhydrous	7664-41-7

#### US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

None.

#### SARA Title III - Section 302 - Notification and Information

Ammonia, anhydrous	7664-41-7
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#### SARA Title III - Section 313 - Toxic Chemical Release Reporting

Ammonia, anhydrous	7664-41-7	1.0%
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#### US States Regulatory Reporting

##### CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.





# Material Safety Data Sheet

## BAYER ADVANCED 12 MONTH TREE & SHRUB PROTECT & FEED CONCENTRATE

MSDS Number 102000018075  
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### US State Right-To-Know Ingredients

Phosphoric acid	7664-38-2	CA, CT, IL, MN, PA, RI
Glycerine	56-81-5	IL, MN, RI
Ammonia, anhydrous	7664-41-7	CA, CT, IL, LA, MA, MN, NJ, PA, RI

### Canadian Regulations

#### Canadian Domestic Substance List

Phosphoric acid	7664-38-2
Potassium chloride	7447-40-7
Glycerine	56-81-5
Ammonia, anhydrous	7664-41-7

### Environmental

#### CERCLA

Phosphoric acid	7664-38-2	5,000 lbs
Ammonia, anhydrous	7664-41-7	100 lbs

#### Clean Water Section 307 Priority Pollutants

None.

#### Safe Drinking Water Act Maximum Contaminant Levels

None.

### International Regulations

#### European Inventory of Existing Commercial Substances (EINECS)

Phosphoric acid	7664-38-2
Potassium chloride	7447-40-7
Glycerine	56-81-5
Ammonia, anhydrous	7664-41-7

## SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 1      Flammability - 1      Reactivity - 0      Others - none

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason to Revise: New Material Safety Data Sheet.

Revision Date: 05/03/2007

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions. The product names are registered trademarks of Bayer.